
Digitized by the Internet Archive
in 2017 with funding from
The National Endowment for the Humanities and the Arcadia Fund

https://archive.org/details/hawaiimedicaljou51unse

JANUARY 1992
VOL. 51, No. 1
ISSN: 0017-8594

Hawaii Medical Journal

Journals
W1
HA
968

Hawaii Medical Journal
UCSF LIBRARY
Received on: 02-05-92

CONTENTS

EDITORIAL 4
We search for the truth
J I Frederick Reppun MD

HMA COUNCIL HIGHLIGHTS 4
22 November 1991

LETTER TO THE EDITOR 7

POEM: "GROWING OLD" 7
Robert S Flowers MD

HMA PRESIDENT'S PAGE 9
Stephen Wallach MD

COMPARISON OF HEALTH EXPENDITURES IN 10
U.S. AND HAWAII ECONOMICS
Richard V Stenson MHA MBA FACHE FACMGA

AMERICA'S PHARMACEUTICAL RESEARCH COMPANIES: 15
KEEPING THE COST OF HEALTH CARE DOWN
Pharmaceutical Manufacturers Association

HEREDITARY ANEMIA IN HAWAII: AN UPDATE 17
Y E Hsia BM FRCP DCH

NEWS AND NOTES 20
Henry N Yokoyama MD

POEM: "PERSPECTIVE" 22
Robert S Flowers MD

MAKA O KA KAUKA 23
Russell T Stodd MD

BOOK REVIEW 25
J I Frederick Reppun MD

U OF CALIFORNIA-SF
LIBRARY
SERIALS DEPT, BOX 0840
530 PARNASSUS AVE
SAN FRAN, CA 94143-0840

HAWAII MEDICAL ASSOCIATION 1856

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of MICRA's tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if California's tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively
Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

Hawaii Medical Journal

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor: J I FREDERICK REPPUN, MD
Founding Editor: HARRY L ARNOLD JR, MD
News Editor: HENRY N YOKOYAMA, MD
Contributing Editors: STEPHEN RPK BRADY, MD, FRANCIS H FUKUNAGA, MD,
Editorial Assistant: DAISY CANITE
Publisher: STEPHEN S LENT

Editorial Board
NORMAN GOLDSTEIN, MD,
ROBERT TS JIM, MD
JAMES LUMENG, MD
FRANCIS D PIEN, MD

Publications Committee: MYRON E SHIRASU, MD (Commissioner)
HENRY N YOKOYAMA, MD (Chairman)
ERLAINE BELLO, MD
STEPHEN RPK BRADY, MD,
NADINE BRUCE, MD
NATHANIEL PH CHING, MD,
RICHARD CHUNG, MD
ALVIN FURUIKE, MD,
FRED GILBERT, JR, MD
ROBERT HOLLISON, MD
AMOD JAIN, MD
ROBERT JIM, MD,
JAMES LUMENG, MD
BAL RAJ MEHTA, MD
FRANCIS PIEN, MD,
J I FREDERICK REPPUN, MD,
KIM THORBURN, MD
TERRY CY WONG, MD
GWEN FU (HMA Auxiliary)

OFFICERS
President: STEPHEN J WALLACH, MD
President-Elect: JEANETTE HJ CHANG, MD
Past President: JOHN T MCDONNELL, MD
Secretary: ANDREW DON, MD
Treasurer: JOHN S SPANGLER, MD

County Presidents
Hawaii: RICHARD KM LEE-CHING, MD
Honolulu: CALVIN YH WONG, MD
Kauai: LARRY MAGNUSSEN, MD
Maui: LEONARD H SAKAI, MD
West Hawaii: MINOLU R CHENG, MD

Delegates to AMA
CALVIN CM KAM, MD
RUSSELL T STODD, MD
Alternate Delegates to AMA
STEPHEN J WALLACH, MD
JOHN T MCDONNELL, MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237-640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Non-member subscriptions are $18. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Printed in U.S.A.

The Backworks Difference...

Experience.

"I like motivating people, as this company helped me when I was in the same predicament. I can relate to patients, bacause I had herniated discs at L3-4, L4-5, and L5-S1."

Jeremiah Kalima-
Former Patient and Backworks
Work-hardening Assistant



BACKWORKS HAWAII inc.

456-7077
945 Kam Hwy.
Pearl City, Hawaii

FMGEMS
NMB
FLEX

We know What's Tested.
We know The Answers.

We are the experts at preparing foreign medical graduates for the FMGEMS, NMB and FLEX. Thanks to our many years of experience with all three tests, we know the content of each of the specific subject areas. Better yet, we can teach you how to select the right answer choices. Our Review Courses are modular and self-paced. Our Centers are open days, evenings and weekends. Call us today!

STANLEY H. KAPLAN
Take Kaplan Or Take Your Chances

2875 South King Street • Honolulu, Hawaii 96826
946-5600



We search for the truth

We physicians, for the most part, have our biological computers — our brains — filled to the crown with the vast amount of medical knowledge that is needed to practice medicine carefully and with compassion, to avoid doing more harm than good, to advise that the benefit will overwhelm the risk. It may not be excusable, in the face of the emphasis on cost-control, but it is reasonable and understandable why we also have not filled our poor brains with the data of how much a procedure, or a test we order, or a prescribed drug, will cost the patient.

We physicians have heard conflicting accusations that it is we who are the major cause of the phenomenal rise in the percentage of GNP. Or is the major factor the cost of institutionalization of the sick and injured? Or is it more bothersome (to our patients) that it is the price of the drugs we prescribe? We all know, of course, that even the people who are fortunate enough to qualify for insured drug plans have to pay more and more out of pocket for smaller and smaller supplies of pills; therefore, for more trips to the pharmacist for refills.

The Statement of the PMA — the Pharmaceutical Manufacturers Association — from which we have excerpted cogent parts and published them in this issue of the *Journal*, may provide practicing physicians in our readership with information that they can use when their patients complain and accuse the drug companies and pharmacies of gouging and profiteering.

The complete Statement is available at the HMA to anyone interested.

J I Frederick Reppun MD
Editor

Highlights of the HMA Council Meeting of November 22, 1991

The meeting was called to order by President Stephen Wallach at 5:33 pm. New members to the Council were introduced. The members present were: J Chang, A Don, J Spangler, J McDonnell, C Kam, R Stodd, F Holschuh, C Wong, L Sakai, R Lee-Ching, R Laird, R Adaniya, HH Chun, R Embry, R Kimura, HKW Chinn, K Brady, H Fong, M Shirasu, C Kadooka, R Goodale, J Betwee, H Percy, T Smith, G Goto, J Lumeng, WWY Chang, N Winn, JHC Kim, A Kunimoto, W Dang, D Bainum, and W Dang Jr. Also present were: F Reppun - Editor HMJ, B Fong - Medical Director AETNA Medicare, R Ando - Immediate Past Speaker, J Armstrong - Tripler AMC, S Levine - Chair PR Committee, P DeMare - President-elect HCMS and V Woo - Legal Counsel. HMA staff present were: J Won, N Jones, B Kendro, J Asato, P Kawamoto, J Estioko, L Tong and M Lindsey - recording secretary.

A legislative training session presented by HMA will be given January 11, 1992.

Bernard Fong announced that the new Medicare reimbursement will take effect January 1992.

The successful 1991 Distinguished Medical Reporting Awards Banquet generated $5,645 which was donated to the Hawaii Medical Library - Charles Judd Jr MD Fund.

The Speaker's Report of the 135th HMA House of Delegates meeting was accepted with commendation to Speaker Ando.

John McDonnell was appointed to chair the Membership Task Force to create an overall strategy for a membership drive.

Council approved a letter by President Stephen Wallach to members urging increased access to medical care for all people of the State of Hawaii.

Council approved the appointment to the 1991-92 HAMPAC of the following: R Ando, P Chinn, HH Chun, A Chun-Hoon, M Cooper, R DeHay, R Embry, R Goodale, G Goto, P Hellreich, F Holschuh, S Hundahl, R Ignas, P Kim, R Kuboyama, A Kunimoto, R Laird, L Levin, J Lumeng, E Matsuyama, J McDonnell, R Mitsunaga, C Miura, C Sia, L Siri-Hundahl, R Stodd, G Takushi, D Tokairin, S Wallach, J Chang, R Lee-Ching, N Kaneshiro, Alice Tucker, Fritz McKenzie and Maureen Lau.

Council approved a grant application to study factors that influence the outcome of women 65 years or older with breast cancer.

Council supported the Hawaii AIDS Task Group's grant application to provide transportation of Neighbor Island AIDS workers to Oahu for not only the Hawaii AIDS Task Force Group meeting, but also a full day of information exchange.

Council approved the CPT coding workshop for January 14 and 16, 1992 for Hawaii physicians and health-care workers. The AMA and HCFA will present the workshop jointly.

Andrew Don MD
HMA Secretary

ONCE DAILY **180mg**

Calan® SR

verapamil HCl 180 mg

SUSTAINED-RELEASE CAPLETS

The recommended starting dose for Calan SR is 180 mg once daily. Dose titration will be required in some patients to achieve blood pressure control.

A lower initial starting dosage of 120 mg/day may be warranted in some patients (eg, the elderly, patients of small stature).

Constipation, which is easily managed in most patients, is the most commonly reported side effect of Calan SR.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol and propranolol clearance may occur when either drug is administered concomitantly with verapamil. A variable effect has been seen with combined use of atenolol. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Verapamil may inhibit the clearance and increase the plasma levels of theophylline. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. There was no evidence of a carcinogenic potential of verapamil administered to rats for 2 years. A study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes, reversible non-obstructive paralytic ileus. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, galactorrhea/hyperprolactinemia, increased urination, spotty menstruation, impotence.

4/11/91 • P91CA6277V

Address medical inquiries to:
G D Searle & Co
Medical & Scientific
Information Department
4901 Searle Parkway
Skokie, IL 60077

SEARLE *G D Searle & Co*
Box 5110, Chicago, IL 60680

A91CA6148T

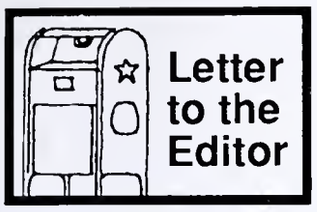


Close at hand



THE QUEEN'S MEDICAL CENTER

Serving Island Families for Six Generations



To the Editor:

Dr Julia Frohlich is to be commended in her article in the July issue for maintaining the supply and monitoring the quality of the Blood Bank. The prompt initiation of Hepatitis "C" control is clearly a measure of the Blood Bank's concern.

Contrary to this, I was appalled to hear the announcement on the television that the Blood Bank refuses to accept donor specification for the recipient. This would be bothersome and will require more record keeping, but to avoid a possible death sentence, no matter how unlikely, it is and should be anyone's prerogative.

The probability is statistically exceedingly low but the risk differs totally from that accepted from other choices seen throughout life, such as driving a car, walking across the street, contracting cancer, etc. In these and essentially all other categories of risk, there is a possibility of death but not an irreversible certainty.

The Blood Bank's Board ought to give this prerogative serious consideration and establish a protocol to permit the donors to direct and specify the individual recipient, with the proviso that if not used on the specified date, it would revert to the usual reserve.

George W Henry MD
Honolulu

Dr Frohlich replies:

Directed donation is the procedure of assigning donated blood units to specific patients. The Blood Bank of Hawaii does not participate in directed donations for a number of reasons:

1) Our belief that the safest source of blood is from purely voluntary, "disinterested" community donors.

2) The lack of scientific data showing that directed donations are any safer than our current practice of accepting nonpaid community donors.

3) The need to preserve purely voluntary, disinterested community donors as the primary source of blood and blood products.

4) Our concern that directed donors, given their identified relationship with the requestor, might be less inclined to reveal accurate, personal, intimate and sensitive information to screening questions which they believe might reflect negatively on them vis-a-vis the requestor.

I am aware that the subject has generated an emotional response from people who desire to receive blood only from those they deem "safe." But scientific evidence has not demonstrated that the directed donor is safer than the anonymous, nonpaid community donor. (Strauss, *Transfusion*, 30:1990; Starkey, *JAMA*, 12/89; Goldfinger and Page, *Transfusion*, 29:1989; Cordell, *Transfusion*, 26:1986).

In contrast, there is scientific basis for the use of autologous blood, based on both safety and immunology. The Blood Bank of Hawaii has been involved in the collection of autologous blood for 20 years, and most hospitals today also participate in autologous blood collection. (NB: FDA regulatory requirements differ in collecting a patient's own blood for autologous use and collecting for homologous use through programs exemplified by the community blood center activities.)

Over the years, we have endeavored to keep the medical community informed of current blood-banking issues and practices through direct mailings and presentations in the *Hawaii Medical Journal*. It is through such ongoing dialogue and the interest and support of concerned physicians and community leaders that we are able to continue and improve our services to Hawaii's patients and their families.

Julia Frohlich MD
President/Medical Director
Blood Bank of Hawaii

Growing Old

I have no fear of growing old —
To me my silver is better than gold.
Each of my years is precious and dear,
But I can't stand hair that grows on my ear!

I love the wisdom experience spawns
And the ideas planted in cerebral lawns —
The ones that grow with seasons and years,
Like the hairs that emerge on both of my ears.

The kind that is long and tickles inside,
Or those on the rim — impossible to hide.
They are the ones that make me shout
When my wife feels compelled to pull them out!

But last week *aging* suddenly turned,
And I lost those hairs my years had earned.
A special clipper came to my aid
And leveled that forest my ears had made.

But life goes on as everyone knows —
We continue to age, and the hair regrows
Time never stops. It forges ahead —
If my ear hair stops growing, I'll know I am dead!

Robert S Flowers MD
August 20, 1990



WHAT RUNS AS SMOOTHLY AS A CLASSIC CAR?

Private Financial Services.

At this stage in life, your financial affairs should run as smoothly as a classic car. So to keep them finely tuned, call Private Financial Services at Bank of Hawaii.

This highly specialized group offers the ultimate in private banking. An officer assigned to you coordinates all your banking, trust and investment activities. At no extra cost to you. The goal always: maximizing your assets, while minimizing your risks.

If your annual income has reached $100,000 and your net worth is $300,000 or more, excluding your primary residence, you require banking that is solid and dependable for the long run. Call 537-8663.

Bank of Hawaii
HAWAII'S BANK

MEMBER FDIC

1964 1/2 Mustang Collectible

HMA President's Page

On December 11, 1991, the American Medical Association announced a major campaign against smoking.

The Hawaii Medical Association has had a long commitment to anti-smoking. There has been the creation of a task force looking at an overall strategy for the State and another one to work legislatively. We are involved in these projects with the State Health Department and with voluntary health agencies such as the Hawaii branches of the American Cancer Society, the American Heart Association, the American Lung Association and the Coalition for a Drug-Free Hawaii.

The removal of the influence of tobacco on the youth of Hawaii is a prime concern. The medical association led an effort to challenge Philip Morris Corporation when it brought the original Bill of Rights document to Hawaii. We felt that this was a subtle effort to indoctrinate young people in future brand recognition.

RJ Reynold's company, Nabisco, has brought out Joe Camel. According to *JAMA*, December 11, 1991, Vol. 26, #22, p. 3149, "Old Joe Camel cartoon advertisements are more successful at marketing Camel cigarettes to children than to adults. This finding is consistent with tobacco industry documents that indicate that a major function of tobacco advertising is to promote and maintain tobacco addiction among children."

Other studies have shown that very young children see, understand and remember advertisements. There must be a combined effort by our legal system to enforce and by our educational system to reduce the sale of tobacco to the young.

Another area of concern is passive smoke inhalation. Numerous reports have demonstrated that these secondary effects are as dangerous as primary smoking. Non-smoking workers must be protected from this. This year there will be a strong legislative effort to forbid smoking at the worksite. Employers are also aware of the potential liability in workers compensation.

In California, there is an earmarked tax on tobacco. One hundred million dollars is raised annually by this means by the state, and the money spent on preventive efforts.

The HMA will continue to play a leadership role in achieving a smoke-free society. All physicians need to be part of this effort.

Sincerely,
Stephen Wallach MD
HMA President

YOCON®
YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac.

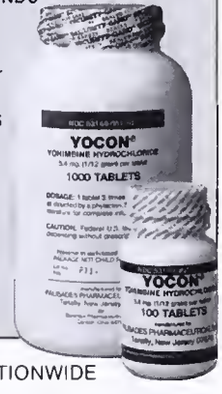
Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.



References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85

AVAILABLE AT PHARMACIES NATIONWIDE

PALISADES PHARMACEUTICALS, INC.
219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

Comparison of health expenditures in U.S. and Hawaii economies

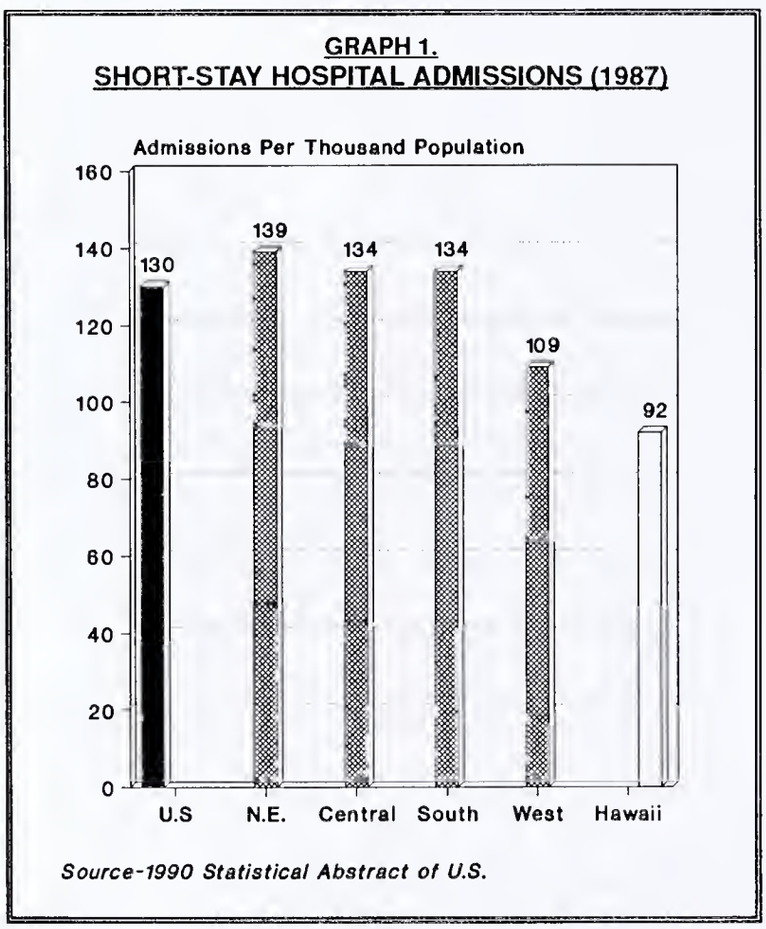
Richard V Stenson MHA MBA FACHE FACMGA

The author uses published statistical and economic data to demonstrate that Hawaii's health care costs, as a percent of gross product, are significantly below the U.S. average, perhaps as low as 8.1% of Gross State Product (GSP).

Introduction

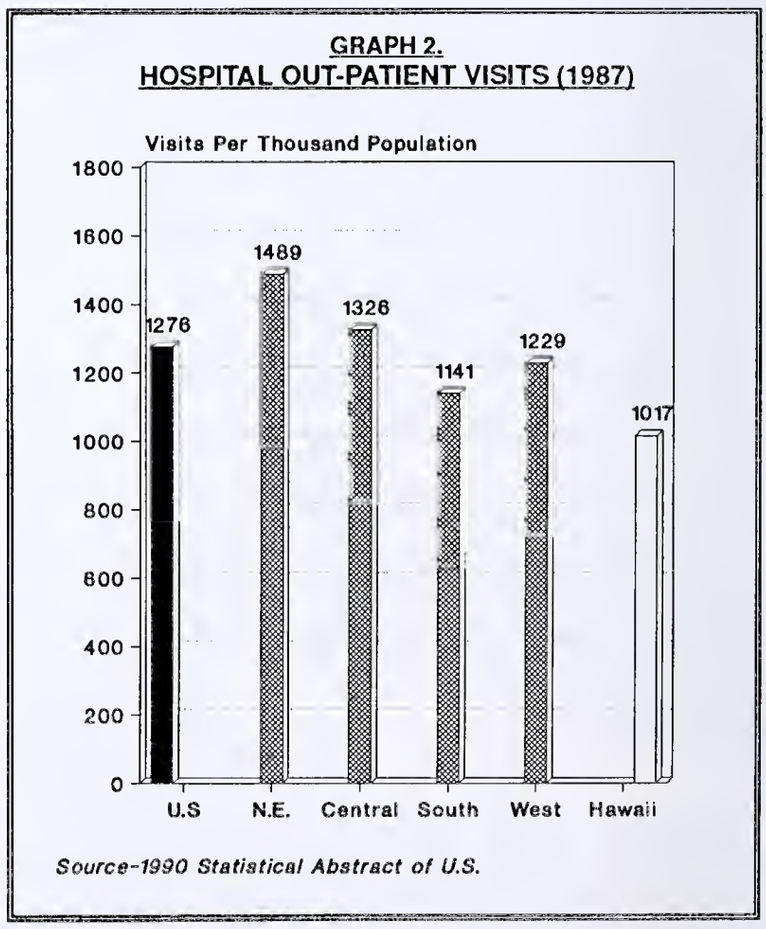
Although a great deal has been written about the growing portion of the Gross National Product (GNP) being expended on medical services, there has been no comparative data published previously on the share of Hawaii's Gross State Product (GSP) consumed by health care expenditures. Further, since health care costs have been rising steadily in both Hawaii and the U.S., business leaders and government authorities here may well assume that Hawaii's costs are comparable to those on the mainland U.S.

Hawaii's health service providers believe that since the State is among the lowest in rates of hospital admissions and outpatient visits in the country (Graphs 1 & 2)[1], has far fewer hospital beds per population (Graph 3)[2], and hospital expenses generally below those of comparable, high cost-of-living states (eg California, New York, and Alaska[3]), the percent of Hawaii's GSP used to provide medical goods and services is presumed to be less than that for the U.S. as a whole.



Methods

This paper compares the major medical economic data ele-



(Continued) ➤

Richard V Stenson MHA MBA FACHE FACMGA
Executive Vice President
Straub Clinic and Hospital
888 South King Street
Honolulu HI 96813

Received for publication September 11, 1991.

Listen to your heart.

Sandra called me on the way to work to remind me about our family dinner tonight.

Emily left a message on my AMS: 'I love you, Daddy.'

I called her back and said, 'I love you, too.'

Nothing feels better than keeping in touch.

Island-wide coverage. Personalized service. And more cellular options to meet your communication needs. At Honolulu Cellular, we know phones aren't just for business any more. Because some things are too important to lose touch with.

Discover the communication choice you can depend on.

Only at Honolulu Cellular.



We feature state-of-the-art cellular phones by Motorola.



Honolulu Cellular

Hawaii's Cellular Leader

1161 Kapiolani Boulevard / 545-4765 • Grosvenor Center, 737 Bishop Street / 528-6161 • 98-1238 Kaahumanu Street, Suite 100 / 487-CELL

ments in the U.S. and Hawaii. The sources of information are existing published data, primarily the Hawaii Department of Business, Economic Development & Tourism's (DBED) annual *Data Book* and the Health Insurance Association of America's (HIAA) annual *Source Book of Health Insurance Data.*

The HIAA data are produced largely from the federal Health Care Financing Administration's (HCFA) tabulation of Personal Health Care Expenditures (PHCE), whereas the State's DBED reports use the methodology of the U.S. Commerce Department's Personal Consumption Expenditures (PCE) — Medical Care component, as reported in National Income and Product Accounts (NIPA). There are minor differences in accounting methodologies used by HCFA and Commerce. As a result, the Commerce NIPA and related DBED figures have been somewhat lower relative to the HCFA tabulations. (HCFA and Commerce are working to resolve this problem in the next 2 years.) If this difference in methodologies is left unadjusted, the Hawaii data appears even more favorable (lower) than presented in this paper.

The following data and graphs compensate for this built-in understatement by raising DBED reported Hawaii figures by the same ratio of the difference between NIPA and HCFA medical care consumption accounts for each of the years cited (eg the effect for 1988 was to increase Hawaii's percent of GSP for medical care from 7.5% to 8.1%). These interpolations are based on the U.S. Department of Commerce's *Personal Consumption Expenditures Methodology Papers: U.S. National Income and Product Accounts,* June 1990, and issues of the U.S. Department of Commerce's periodical *Survey of Current Business.* Where minor data elements for Hawaii are unavailable, ie, net cost of health insurance, public health activities, research and construction (combined total less than 12% of total health expenditures), they are interpolated at national norms for those years.

TABLE 1

1988 HEALTH EXPENDITURES BY TYPE (Millions)

Type of Expenditure	U.S.	Hawaii*
Personal Health Care[4]**	$478,000	$1552
Program Administration and Net Cost of Private Health Insurance[5]	26,000	85
Government Public Health Activities[6]	17,000	51
Total Services and Supplies	521,000	1,688
Research and Construction[7]	19,000	64
Total Health Expenditures	$540,000	$1,752

* The Hawaii figures have been proportionally raised for an equitable comparison with national accounts, as noted in the preceeding discussion.

** "Personal Health Care" represents private and public spending for direct health and medical services to individuals, whether insured or not. The figure includes items such as hospital, nursing home, and home health care; physician, dentist, and other professional care; drugs and other medical nondurables; vision products and other medical durables; also included are nonprescribed drugs and medicines, household supplies and other items not covered by insurance.

TABLE 2

1988 U.S. AND HAWAII HEALTH EXPENDITURES (Millions) AS A PERCENT OF GROSS PRODUCT[8]

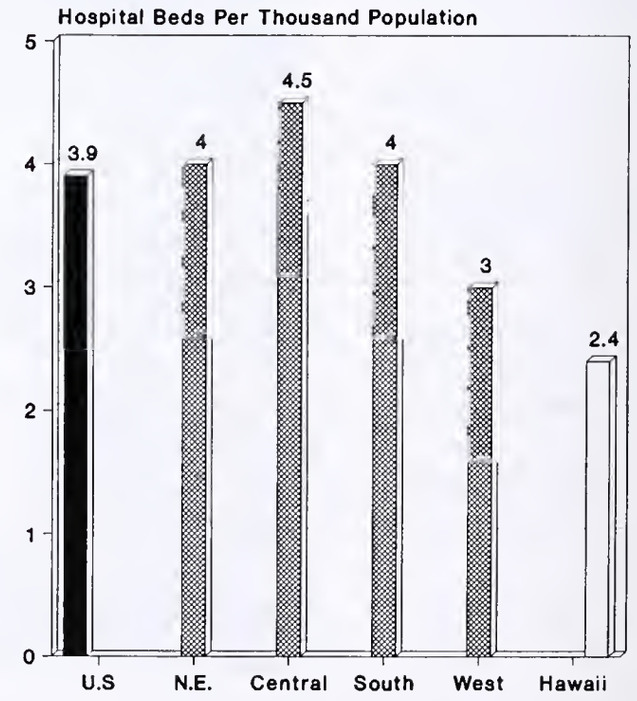
$$\frac{\text{U.S. Health Expenditures}}{\text{Gross National Product}} = \frac{\$540{,}000}{\$4{,}881{,}000} = 11.1\%$$

$$\frac{\text{Hawaii Health Expenditures}}{\text{Gross State Product}} = \frac{\$1{,}752}{\$21{,}588} = 8.1\%$$

Results

A comparison between U.S. and Hawaii health expenditures indicates that the percent of Hawaii's GSP consumed by medical goods and services was at 8.1% in 1988, versus the U.S. experience of 11.1% of GNP (Table 1, Table 2, and Graph 4). A review of data from prior years indicates this divergence began in 1983 and has increased since then (Graph 5). Graph 6 (per capita annual health expenditures in current dollars for both Hawaii and the U.S.) demonstrates that the ratio favorable to Hawaii is not simply an aberration of the rapidly expanding local economy (the GSP denominator in the ratio), but is due to a generally lower and slower rate of growth of the health care expenditures in Hawaii.

GRAPH 3.
SHORT-STAY HOSPITAL BED SUPPLY (1987)



Source-1990 Statistical Abstract of U.S.

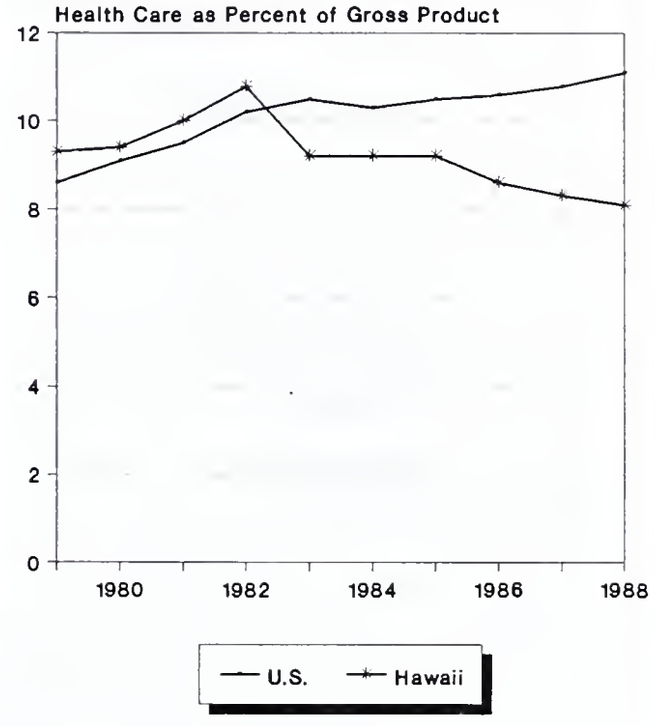
When compared to other industrialized countries with purportedly exemplary national health programs, Hawaii's health expenditures as a percentage of the economy are lower than in many. Graph 7 depicts the relative health expenditures as a percent of Gross Domestic Product (GDP = GNP less net foreign investment income), in the U.S., Canada, United Kingdom, Japan, Germany, Sweden, the Netherlands and Hawaii. Hawaii has the third lowest expenditure ratio in this comparison.

Discussion

The specific causes of this enviable cost of health care record in Hawaii have never been delineated. Many theories have been advanced to explain our favorable health status (greatest longevity in the U.S.) and lowest hospital utilization. The various factors mentioned include the mild climate, the multi-cultural population, an oligopolistic health insurance industry, a mandated workplace health insurance coverage, as well as the role of the State Health Planning and Development Agency (SHPDA), to name a few. To date, none has proven to be the primary element restricting our health service utilization and expenditures. This is worthy of further research, since the answer may be beneficial to other communities attempting to deal with soaring health costs.

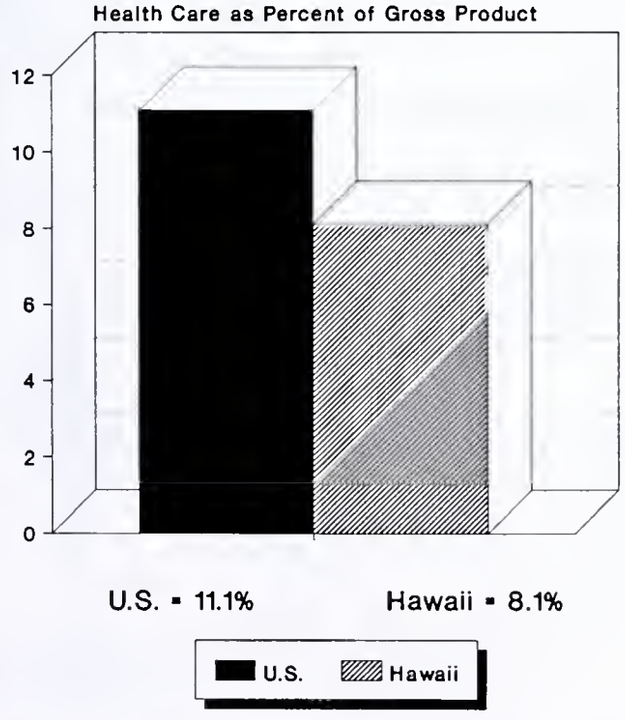
However, one wonders whether our overall health expenditures are lower, in part, because Hawaii's health providers are being paid less per unit of service than their peers in other communities with comparable high costs of doing business, as is frequently implied by anecdotal comparisons with Mainland counterparts.

GRAPH 5.
HEALTH EXPENDITURES AS % OF GNP AND GSP



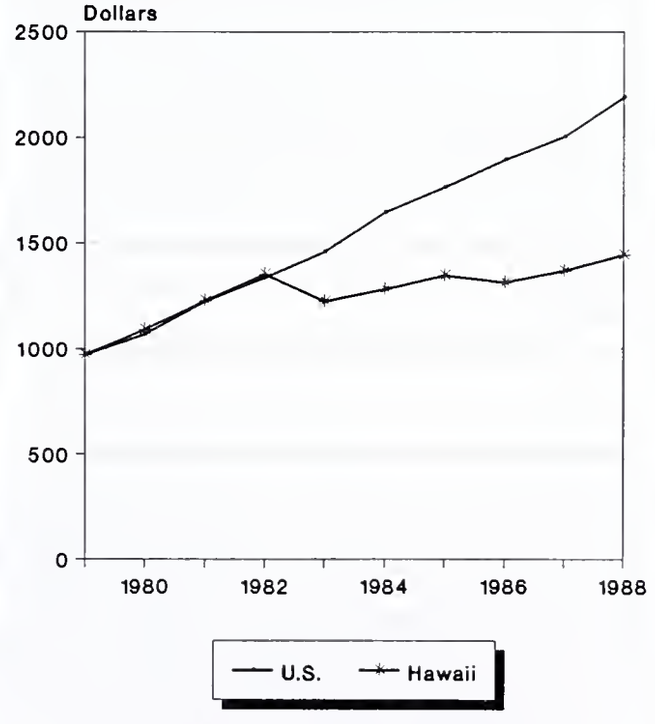
(Derived from HIAA and DBED data)

GRAPH 4.
1988 HAWAII VS. U.S. HEALTH EXPENDITURES



(Derived from HIAA and DBED data)

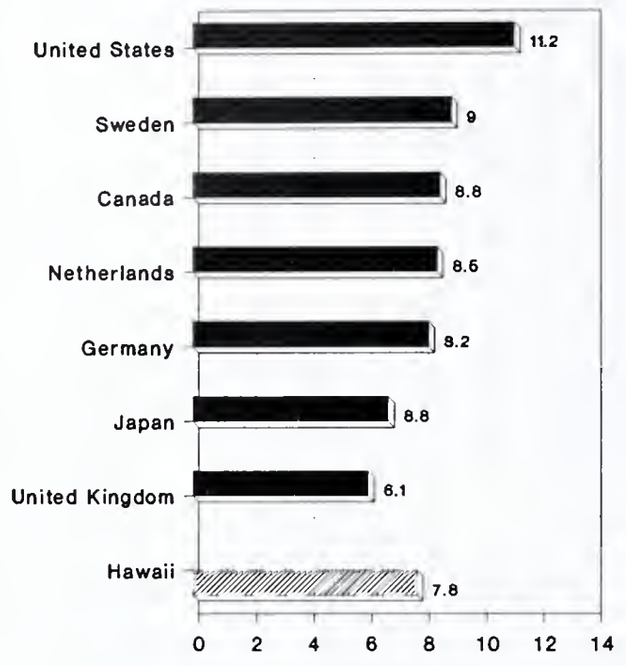
GRAPH 6.
PER CAPITA ANNUAL HEALTH EXPENDITURES



(Derived from HIAA and DBED data)

(Continued) ➤

GRAPH 7.
HEALTH EXPENDITURES AS % OF 1987 GDP



(Derived from HIAA and DBED data)

Conclusion

Health care expenditures have been rising inexorably all across the U.S., including Hawaii. Much has already been written about the causes of this growth, eg increasing consumer demand, aging population, advances in health technologies, scarcities of professional labor and general inflation. Nevertheless, this paper demonstrates that Hawaii's health care purchasing power, relative to other costs in our economy and the U.S. as a whole, is a proven better value to the people of our community.

Perhaps the State would be best served if the efforts of our community leaders focused on a comprehensive study of why Hawaii has done so well. In this way we might learn how to maintain and improve on this successful record, and transfer our experience to other states.

LEGEND AND REFERENCES

1. *1990 Source Book of Health Insurance Data,* published by Health Insurance Association of America (HIAA), page 78, Table 5.2, lists days of short-stay hospital care per 1,000 U.S. population for 1988 as 834. The Hawaii Department of Health (DOH) *1988 Statistical Report,* page 94, Table 7 lists average statewide acute care daily census (including Tripler Army Medical Center [TAMC]) as 2,073. The Hawaii Department of Business, Economic Development & Tourism's (DBED) *1990 Data Book,* page 14, Table 3 lists a 1988 *de facto* state population of 1,216,700. When 2,073 is multiplied by 366 days (a leap year) and divided by the *de facto* population of 1,216,700, Hawaii had 624 days of acute care hospitalization per thousand population for 1988.

   Graphs 1 and 2 use data published in the *1990 Statistical Abstract of the U.S.* 1987 short-term hospital admissions and out-patient visits (page 106) are divided by 1987 regional population figures (page 20) to create Graphs 1 and 2, respectively.
2. The DBED *1990 Data Book,* page 618, Table 719 ranks Hawaii 49th in hospital beds per population. The HIAA *1990 Source Book of Health Insurance Data,* page 64, Table 4.9 lists total U.S. acute hospital beds as 946,697 for 1988. The U.S. Department of Commerce, Bureau of Census, *1990 Statistical Abstract of the U.S.,* page 7, Table 2 lists the 1988 U.S. population as 246,329,000. Therefore, U.S. acute hospital bed per thousand population were 3.84. Whereas the DOH *1988 Statistical Report,* page 90, Table 1 lists Hawaii statewide acute hospital bed capacity (including TAMC) for 1988 at 2,855. And, the DBED *1990 Data Book,* page 14, Table 3 lists the 1988 *de facto* state population as 1,216,700. Therefore, the Hawaii acute hospital beds per thousand population were 2.35. Or, Hawaii was only 61% of the U.S. ratio of hospital beds to population.

   Graph 3 uses data published in the *1990 Statistical Abstract of the U.S.* 1987 short-term beds (page 106) are divided by 1987 regional population figures (page 20).
3. The HIAA *1990 Source Book Of Health Insurance Data,* page 64, Table 4.9 lists 1988 average costs per hospital stay (expenses) for each state. Hawaii average hospital cost per hospital stay was $4,651. Alaska was $5,616 per stay. New York was $5,070 per stay. California was $5,061. Nine states had higher average hospital stay costs than Hawaii.
4. U.S. value from HIAA *1990 Source Book of Health Insurance Data,* page 56, Table 4.1. Hawaii value from DBED *1990 Data Book,* page 349, Table 388 "1988 Personal Consumption Expenditures, Resident Population, Medical Care: $1,441,000,000."
5. 1988 U.S. value for Program Administration and Net Cost of Private Health Insurance from HIAA *1990 Source Book of Health Insurance Data,* page 56, Table 4.1. Hawaii data unavailable, but estimated at same proportion (5.5%) of Personal Health Care as U.S. expenditures.
6. 1988 U.S. value for Government Public Health Activities from HIAA *1990 Source Book of Health Insurance Data,* page 56, Table 4.1. Hawaii data unavailable, but estimated at same proportion (3.3%) of Personal Health Care as U.S. expenditures.
7. 1988 U.S. value for Research and Construction from HIAA *1990 Source Book of Health Insurance Data,* page 56, Table 4.1. Hawaii data unavailable, but estimated at same proportion (4.1%) of Personal Health Care as U.S. expenditures.
8. 1988 Gross National Product from HIAA *1990 Source Book of Health Insurance Data,* page 57, Table 4.2. Gross State Product from DBED *1990 Data Book,* page 346, Table 385.

■



"IT STOPPED PLAYING RIGHT DURING GENERAL HOSPITAL. WILL MY BLUE SHIELD PAY FOR IT?"

America's pharmaceutical research companies: Keeping the cost of health care down

Pharmaceutical Manufacturers Association

A response to the staff report of the U.S. Senate Special Committee on Aging.

The staff of the U.S. Senate Special Committee on Aging issued a report on September 24, 1991 intended for informational purposes. "It does not represent either findings or recommendations formally adopted by the Committee," according to the report.

The report is critical of America's pharmaceutical research companies on 5 principal points: prices, profits, marketing, research and tax credits.

The staff report is biased and replete with factual errors, erroneous interpretations and misstatements. Then, on the basis of flawed findings, the report presents misguided policy options.

America's pharmaceutical industry leads the rest of the world in innovation; the new drugs that are developed by the industry improve the health and quality of life of patients here and around the world. These medicines save lives and money. They often cure or control deadly diseases, shorten hospital stays, reduce physician visits and obviate surgery in millions of cases. Prescription medicines help hold down health-care costs. And they are the best hope for containing health-care costs in the future.

The following addresses the report's principal allegations.

Prescription drug prices/profitability

Costs of discovering and developing pharmaceuticals have risen sharply.

- Industry-funded research and development expenditures have doubled every 5 years since 1970, reaching $9.2 billion in 1991 — more than the total invested in biomedical research by all the National Institutes of Health.
- Drug prices have not risen as fast as the industry's R&D expenditures. In 1990, for example, the rise in pharmaceutical research was virtually double the rate of drug price increases across the industry.
- Compared with all other U.S. industries, the pharmaceutical industry devotes a higher percentage of sales revenues to R&D — 16.5% in 1990 for all PMA member companies. This is more than 4 times the average of all industries.
- The latest estimate — by economists at Tufts University — of the cost of developing a new drug is $231 million, up sharply from earlier estimates.
- A recent study by Duke University economist Henry Grabowski found that only 3 of every 10 drugs introduced by the pharmaceutical industry between 1970 and 1979 subsequently recovered their R&D costs.
- The Grabowski study also concluded that if prices had risen at only the general rate of inflation since 1980, the industry could not have recovered its costs for this portfolio of drugs and R&D expenditures would have been adversely affected.

The 1980s have seen greatly shortened product life cycles for pharmaceuticals.

- In 1984, the life cycle of pharmaceutical products that had lost patent protection was shortened dramatically with the passage of the Drug Price Competition and Patent Term Restoration Act (Waxman-Hatch), which made possible quick approval of generic copies of brand-name products. Within 2 years of patent expiration, the typical pharmaceutical product now loses half of its market. This has put significant pressure on prices.

Foreign patent piracy raises costs.

- Countries such as India, Brazil and Thailand steal an estimated $4.8 billion in patented inventions from U.S. pharmaceutical companies each year, according to the U.S. Trade Representatives and the International Trade Commission.

A different Consumer Price Index (CPI) base year would lead to different conclusions.

- To demonstrate that pharmaceutical price increases are advancing faster than other medical expenditures, the report uses 1980 as a base year. If the report had gone back to the CPI's previous base year of 1967, it would show that drug prices lagged behind the all-items CPI until 1990 — and still trails the CPI's medical component by 200 points. (See chart.)

(Continued) ➤

Pharmaceutical Manufacturers Association
1100 Fifteenth Street, NW
Washington, DC 20005

Received for publication October, 1991.

- Regardless of what the report implies, the average cost of a prescription drug in the U.S. in 1990 was $19.94.

U.S. versus Canadian prices.

- Canadian prescription-drug prices vary from province to province, depending on many factors. Ontario, for example, will pay for only the cheapest generic drugs for its elderly and indigent residents. A similar approach for Medicaid was proposed by Senator Pryor last year and soundly rejected.
- Canada is the only Western industrialized nation that links the market exclusivity of a patented product to its price. Adopting such a patent-crippling system in the United States would have the same effect in this country as Canada's traditionally weak patent system has had in Canada. It would impair the U.S. pharmaceutical industry's innovativeness, making it far less competitive with drug industries in other industrialized countries, such as the United States, Japan, Germany and Switzerland, where patent laws are strong.
- The staff report fails to mention that Canada is the major industrial country with the weakest condition for pharmaceutical innovations, having contributed the least number of new compounds in recent years to cure diseases. Those who advocate Canada's system of price controls and weak patent protection invite a rapid decline in American pharmaceutical innovation, with disastrous consequences for the health of our citizens.

Pharmaceutical industry profitability

- Investments in high-risk ventures — such as new drug development, where fewer than 1 in 5,000 chemicals or biologicals tested actually is ever marketed — appropriately require a rate of return considerably higher than could be obtained from placing the same money in an average company.

Pharmaceutical industry marketing

Marketing practices conform to AMA guidelines

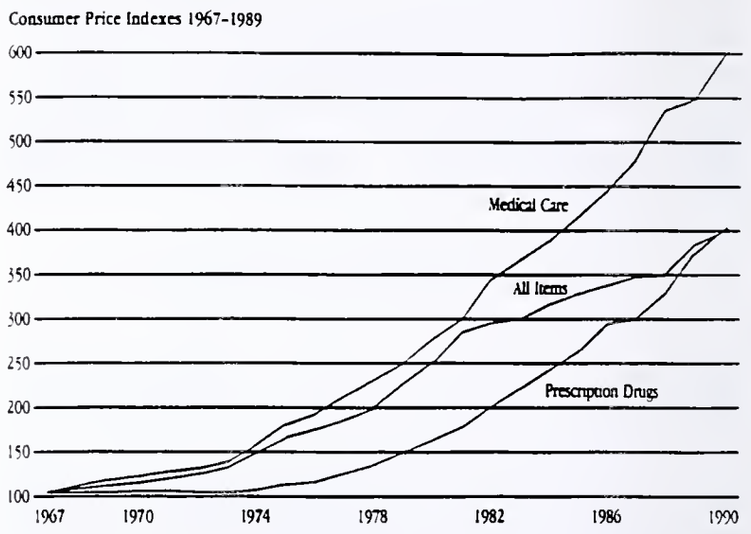
- The staff report's examples of "abusive marketing and promotional practices" do not reflect today's market. Pharmaceutical promotional practices conform to guidelines adopted by the American Medical Association's House of Delegates on December 4, 1990, which the PMA Board of Directors adopted 2 days later. Since the guidelines forbid the practices cited in the report, legislative remedies are unnecessary.

Pharmaceutical industry research

Drug industry breakthrough research

- The report asserts that "few breakthrough drugs" have resulted from the drug industry pricing policies that have sustained research and development. This ignores dozens of "break-through" drugs in past decades. They include biotechnology breakthroughs such as human growth hormone for dwarfism, interferon alpha for AIDS-related Kaposi's sarcoma, erythropoietin for dialysis-associated anemia and granulocyte colony stimulating factor for chemotherapy-induced neutropenia (low white blood cell count). It flagrantly ignores the many breakthrough "conventional" drugs and vaccines for diseases such as river blindness, African sleeping sickness, malaria, severe combined immunodeficiency disease (the so-called "Bubble Boy" disease), AIDS-associated cytomegalovirus retinitis, AIDS-associated cryptococcal meningitis and systemic candidal infections, hepatitis B, haemophilus influenza type B, and neonatal respiratory distress syndrome. And the R&D pipeline is bursting with future breakthroughs.
- The report shows little appreciation of the value of the second or third products on the market in a therapeutic category. These products, though perhaps not breakthroughs, often offer major advances in treatment and reduction in side effects. Examples include newer cephalosporin antibiotics requiring less frequent administration and enabling home intravenous use; improved cancer chemotherapeutic agents which eliminate hospitalization, and newer medications effective in the treatment of schizophrenia and depression.

Rx Drug Prices Below Other Indices



Source: Bureau of Labor Statistics

There are better ways to lower cost of providing needed medicines

Policy options which might actually help reduce the cost of prescription drugs are:

- *Streamline the drug approval process.* The average cost of getting a drug onto the U.S. market could be cut substantially if clinical testing and FDA review times were reduced to that experienced in major European countries such as the United Kingdom.
- *Reduce patent piracy.* U.S. research-based pharmaceutical companies lose about $5 billion a year to international patent pirates, who copy their drugs without per-

(Continued on page 19) ➤

Hereditary anemias in Hawaii: An update

Y E Hsia BM FRCP DCH

Since our first report was published in the Hawaii Medical Journal *in the September 1987 issue and was reprinted in the September 1991 special sesquicentennial issue, with the support of doctors in Hawaii and their referrals, our small team has now tested 5,000 people[4]. DNA analyses have been completed in over 1,000 people.*

In this hereditary anemia project, many families have benefitted; every participant has been sent a personalized report. We have learned valuable lessons about the attitudes and cultures of participants[15-18] about the hematological and clinical features of the diverse thalassemias prevalent in Southeast Asians[1, 3, 4, 7-12]; about how best to detect these and how DNA analyses help in confirming or revising diagnoses[4, 5, 7, 9, 10, 12]. Couples at risk for having severely affected children have been counseled, pregnancies at-risk have been tested[8].

The α-thalassemias have major health implications especially for Filipinos who are the most rapidly growing ethnic minority throughout the United States[9].

A special Thalassemia clinic has been established under R Wilkinson MD to provide structured care for transfusion-dependent patients who may need iron-chelation therapy. We showed that Hb H disease from loss of 3 α-globin genes is usually benign, but Hb H/Constant Spring tends to be transfusion-dependent[11].

Data from this project have greatly improved knowledge about the ranges and confidence limits of red cell indices for each diagnostic category, with improved interpretations of individual results. Extensive experience has been gained in using red cell indices and isoelectric focusing to detect α and β thalassemia carriers in adults and infants[1, 7, 10, 12].

Thalassemia incidences in Laotians and Filipinos were calculated far more accurately than had been done previously[3].

Red cell distribution width and red cell zinc protopophyrin by microfluorimetry are shown to be a reliable inexpensive way to screen for iron deficiency, except for some overlap with β-thalassemia heterozygotes and HB H disease cases.

Innovative DNA techniques have been created, including the first reliable method to look for the Constant Spring mutation[6]. This uses the polymerase chain reaction (PCR) to amplify DNA from the tail end of the α_2-globin gene a million-fold in a few hours. The technique has been applied to analyze a few strands of hair sent from patients in India.

We have also devised a novel PCR technique to detect the most common type of single α-globin gene deletion, introducing a strategy that is applicable to any large DNA deletion[2].

For rapid fetal detection of α-globin deletions, we have developed a multiplex PCR technique to amplify the β-globin, α_1 and α_2 globin genes simultaneously from drops of blood or a few fetal cells. This can be completed in one working day[8].

We have adopted 2 useful techniques developed by others. One screens for the most common double α-globin deletion, using a monoclonal anti-ς antibody on a drop of blood[13, 14]. Another uses denaturing gradient gel electrophoresis to define the dozens of mutations in the β-gene that produce the β-thalassemias.

Data from this project have been presented in national and international conferences[1-5, 7-10, 12-18]; several articles have been published[4-7, 10-13, 16-18] and more are being prepared. I was the coordinator and chair of a special workshop on thalassemia screening at the Eighth International Congress on Human Genetics in Washington, DC, in October, 1991.

Medical Genetic Services
John A Burns School of Medicine, University of Hawaii

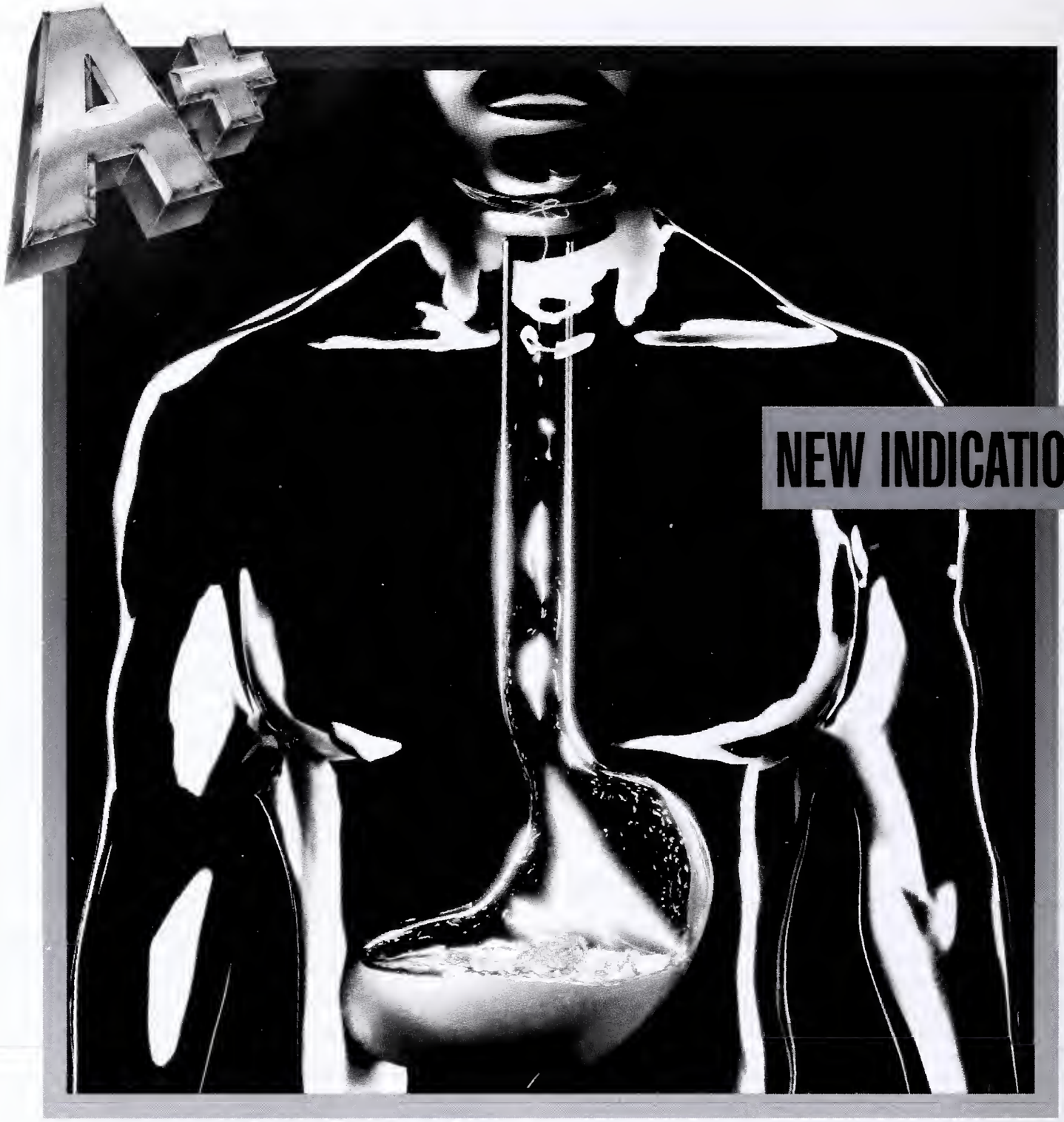
This work was supported by U.S. Public Health Service Bureau of Maternal and Child Health Grants MJC-153562, MJC-151002, and by Grants from Kapiolani Women's and Children's Medical Center.

Received for publication on July 18, 1991.

REFERENCES

1. Ching NSP, Hsia YE, Yuen J, Chu BM, Hunt JA: Hematological parameters for 586 alpha-thalassemia (Thal), 72 beta-Thal and 306 normal genotypes. *Am J Hum Genet* 46:A327, 1991 [#1871].
2. Chu BM, Hsia YE, Hunt JA, Yuen J: Gap PCR for rapid detection of single alpha-globin gene deletions. *Am J Hum Genet* 46:A184, 1991 [976].
3. Hall J, Yuen J, Hunt JA, Chu BM, Hsia YE: Gene frequencies for the alpha-globin variants among Chinese, Laotians and Filipinos. *Am J Hum Genet* 46:A470, 1991 [2675].
4. Hsia YE: Detection and prevention of important alpha-thalassemia variants. *Seminars in Perinatology 15* (Supple 1):35-42, 1991.
5. Hsia YE, Boehm CD, Ford CA, Hall J, Hunt JA, Takaesu N, Titus EAB, Warren TC, Yuen J: Identification and ethnic distribution of total deletion alpha-thalassemia in Southeast Asians (SEA). *Am J Hum Genet* 41:A87, 1988.
6. Hsia YE, Ford CA, Shapiro LS, Hunt JA, Ching NSP: Molecular screening for hemoglobin Constant Spring. *Lancet* 1:988-991, 1989.
7. Hsia YE, Hunt JA, Yuen J, Chu B, Ford CA, Hall J: Alpha-globin variants in 2,930 Southeast Asians in Hawaii. *In:* Bank A (ed): Sixth Cooley's Anemia Symposium. *New York Acad Sci* 612:496-498, 1990.
8. Hsia YE, Hunt JA, Yuen J, Chu BM, Miyakawa F: Alpha$_1$-thalassemia majors: outcome of 39 fetuses at risk; and PCR testing for 11 pregnancies. *Am J Hum Genet* 46:A219, 1991 [#1185].
9. Hsia YE, Yuen J: The Hawaii Report. *In:* Crocker A, Dumars KW (ed): *Thalassemias in Asian Americans:* working together. Report of a Conference. Maternal and Child Health Division, DHHS. 1990 (to be published).
10. Hsia YE, Yuen J, Ching NSP, Chu B, Ford CA, Gresham A, Hall J, and Hunt JA: Hematological parameters for 535 alpha- and 298 beta-thalassemia variants. *In:* Bank A (ed): Sixth Cooley's Anemia Symposium. *New York Acad Sci* 612:510-513, 1990.

(Continued) ➤



ONLY ONE H_2-ANTAGONIST HEALS REFLUX ESOPHAGITIS AT DUODENAL ULCER DOSAGE. ONLY ONE.

Of all the H_2-receptor antagonists, only Axid heals and relieves reflux esophagitis at its standard duodenal ulcer dosage. Axid, **150** mg b.i.d., relieves heartburn in **86%** of patients after one day and **93%** after one week.[1]

AXID®
nizatidine
150 mg b.i.d.

ACID TESTED. PATIENT PROVEN.

1. Data on file, Lilly Research Laboratories.

See accompanying page for prescribing information.

© 1991, ELI LILLY AND COMPANY

NZ-2947-B-249304

AXID®

nizatidine capsules



Brief Summary. Consult the package insert for complete prescribing information.

Indications and Usage: 1. *Active duodenal ulcer*—for up to 8 weeks of treatment at a dosage of 300 mg h.s. or 150 mg b.i.d. Most patients heal within 4 weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a dosage of 150 mg h.s. at bedtime. The consequences of therapy with Axid for longer than 1 year are not known.

3. *Gastroesophageal reflux disease (GERD)*—for up to 12 weeks of treatment of endoscopically diagnosed esophagitis, including erosive and ulcerative esophagitis, and associated heartburn at a dosage of 150 mg b.i.d.

Contraindication. Known hypersensitivity to the drug. Because cross sensitivity in this class of compounds has been observed, H_2-receptor antagonists, including Axid, should not be administered to patients with a history of hypersensitivity to other H_2-receptor antagonists.

Precautions: *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests—False-positive tests for urobilinogen with Multistix® may occur during therapy.

Drug Interactions—No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A 2-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a 2-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups.The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a 2-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in 1 fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in 1 fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Worldwide, controlled clinical trials included over 6,000 patients given nizatidine in studies of varying durations. Placebo-controlled trials in the United States and Canada included over 2,600 patients given nizatidine and over 1,700 given placebo. Among the adverse events in these placebo-controlled trials, only anemia (0.2% vs 0%) and urticaria (0.5% vs 0.1%) were significantly more common in the nizatidine group. Of the adverse events that occurred at a frequency of 1% or more, there was no statistically significant difference between Axid and placebo in the incidence of any of these events (see package insert for complete information).

A variety of less common events were also reported; it was not possible to determine whether these were caused by nizatidine.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to 3 times the upper limit of normal, however, did not significantly differ from that in placebo patients. All abnormalities were reversible after discontinuation of Axid. Since market introduction, hepatitis and jaundice have been reported. Rare cases of cholestatic or mixed hepatocellular and cholestatic injury with jaundice have been reported with reversal of the abnormalities after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in 2 individuals administered Axid and in 3 untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with similar frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Anemia was reported significantly more frequently in nizatidine than in placebo-treated patients. Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Urticaria was reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. The ability of hemodialysis to remove nizatidine from the body has not been conclusively demonstrated; however, due to its large volume of distribution, nizatidine is not expected to be efficiently removed from the body by this method.

PV 2093 AMP [101591]

Additional information available to the profession on request.

Lilly

Eli Lilly and Company
Indianapolis, Indiana
46285

NZ-2947-B-249304

© 1991, ELI LILLY AND COMPANY

HEREDITARY ANEMIA *(Continued from page 17)*

11. Hsia YE, Yuen J, Hunt JA, Chu BM, Miyakawa F: Hemoglobin H is not a disease. *Pediatr Res* 29:131A, 1991 [#769].
12. Hsia Ye, Yuen J, Hunt JA, Rattamanasay P, Hall J, Takaesu N, Titus EAB, Fujita J, Ford CA: The different types of alpha-thalassemia: practical and genetic aspects. *Hemoglobin* 12:465-484, 1988.
13. Ireland JH, Hsia YE, Chui DHK: Anti-zeta testing for alpha-1 thalassemia in newboms. *Pediatr Res* 29:142A, Abstr 841, 1991.
14. Ireland JH, Hsia YE, Chui DHK: Anti-zeta screenign detects the (--SEA) double alpha-globin deletion. *Am J Hum Genet* 46:A329, 1991 [1839].
15. Yuen J, Hsia YE: Consumer attitudes toward thalassemia screening: heterozygotes of multi-ethnic origin. *Am J Hum Genet* 46:A331, 1991 [1851].
16. Yuen J, Hsia YE: How community resources can be utilized in multi-ethnic population screening — a thalassemia screening model. *Am J Hum Genet* 42:282A, 1989 #1113.
17. Yuen J, Hsia YE, Hall J: Impact of a thalassemia screening program on the attitudes of a multi-ethnic poulation. *In:* Bank A (ed): Sixth Cooley's Anemia Symposium. *New York Acad Sci* 612:529-531.
18. Yuen J, Hsia YE, Hall J: Thalassemia heterozygotes in Hawaii: ethnic attitudes toward screening and prenatal diagnosis. *Hemoglobin* 12:801-816, 1988.

■

PHARMACEUTICAL *(Continued from page 16)*

mission. Intellectual property protection must be strengthened, not weakened as in Canada, and tough action taken against patent pirates.

- *Cut product liability costs.* The high cost of protecting against the possibility of high jury awards in product liability cases adds millions of dollars to drug costs. A reform of the tort laws is needed, including protection against punitive damages for products that have been deemed safe and effective by the Food and Drug Administration.

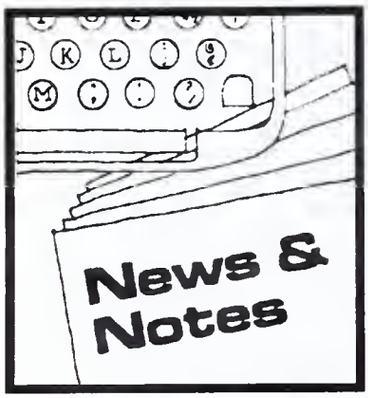
Conclusion

The Senate Aging Committee's staff is singling out one competitive industry for price controls and weakened patent protection. If their recommendations are enacted, it would have a damaging effect on both health care and U.S. international competitiveness.

■



"ARE YOU SURE YOU'RE TAKING THAT VITAMIN PRESCRIPTION?"



Henry N. Yokoyama MD

Life in These Parts...

"Dr Sharon Bintliff was working the emergency room night shift at Pali Momi with 3 nurses, all of whom happened to be male. After Doc Sharon had cared for a child, the mother said sincerely, 'I'm so impressed that just one nurse can keep up with these 3 doctors.' A number of thoughts passed through Sharon's mind, but what she said was, 'Thank you for the compliment.'" (Don Chapman, August 16)

* * *

In October, Medicaid administrator Winifred Odo announced that for the fiscal year ending in June, medical care costs had exceeded the $255 million Medicaid budget by $50 million. She cited a combination of factors: more health claims by the 77,000 Medicaid recipients, new high-tech treatments and more catastrophic illnesses. Last year for every Medicaid dollar spent in Hawaii, the federal government paid 54.14 cents. The amount dropped to 52.57 cents in October and will drop to 50 cents next October. HCFA is even considering reducing the federal share to 45 cents. The State Department of Health Services has considered dropping programs not federally required, such as drug coverage, therapies, dental programs and intermediate care coverage, but Winifred prudently feels that if drug coverage (which cost $20 million last fiscal year) were dropped, there would merely be cost shifting, ultimately costing more and patients would be sicker...

* * *

The National Cancer Institute reports that Hawaii's average annual cancer death was 138.4 per 100,000 compared to the national average of 171.3 per 100,000 for the period 1984 to 1989. Our average was the second lowest nationwide. Utah was the lowest with a large population of Mormons who neither smoke or drink.

The UH Cancer Research Center has the following breakdown by ethnicity for the period 1983 to 1986:

	Male	Female
Caucasians	371	104
Hawaiians	296	95
Japanese	251	71
Filipinos	205	48
Chinese	204	76

Lois Lemarchand, epidemiologist at the UH center reports that Caucasians and Hawaiians have high rates of breast cancer and cites high fat intake, obesity and first pregnancies after age 30 as contributing causes. Robyn Kaufman reports that in general the Asian population has a lower incidence of cancer. She feels that dark green and dark yellow fruits and vegetables may reduce the risk of certain cancers because of their high Vitamin A and Vitamin C contents and high beta-carotene content. Abe Nomura, director of the Japan-Hawaii Cancer Study says the incidence of stomach cancer in Japan is 80 per 100,000 and in Hawaii 30 per 100,000. The incidence in Caucasian males is 10 per 100,000. Abe feels that the high incidence in Japan may be linked to salted, smoked and pickled foods...

Leeches

On August 27, the State Board of Agriculture denied Straub surgeon Randy Wong's request to import live leeches for draining postop clots in microsurgery and reimplantations ...

America's Healthiest State?

In its third annual study, Northwestern National Life Insurance Company looked at violent crime, smoking, motor vehicle deaths, mortality rates, heart disease, cancer and access to health care and vaulted Hawaii into first place from fourth last year as America's healthiest state. State health director John Lewin feels otherwise. He warns: "We are a lot more fat, tense, drunk, diabetic, sedentary, and full of cholesterol than much of the rest of the country. Hawaii's porky, hard drinking, hypertensive, couch potatoes should not take comfort from the study. One myth is that we have good health statistics here because the high proportion of Asian Americans have healthier lifestyles. The reason we appear to be healthy is that Hawaii residents go to the doctor twice as often as other Americans and treat their real illnesses early, and Hawaii residents end up in the hospital about one-half to two-thirds as often as other Americans ..."

Professional Moves

In August: FP Eric Yee, formerly with Garden Island Medical Group joined the Kauai Medical Group staff in its Family Practice/Walk-in Clinic department at Kukui Grove and Central Clinic branches.. Cardiologist Irwin Schatz relocated to 1380 Lusitana Ste 709; and FP Deborah Moorhead joined the Kailua Family & Urgent Medical Care Center.

In September: General and vascular surgeon Eugene Ferris opened his office at Queen's POB II, Ste 602 and Kailua Professional Center, Suite 602; general and transplant surgeon Whitney Limm joined the Surgical Associates of Livingston Wong and Fong Liang Fan at St Francis Medical Office Building, Ste 208 and Queen's POB II, Ste 709.

In October: Ophthalmologist Christopher Tortora joined the Hawaiian Eye Center as director of its glaucoma service ...

Entrepreneurs

Osteon, a high tech company based in Wahiawa, is owned by physicians John Vogel (former NASA physician), Richard Wasnick (Hawaii Osteoporosis Center director), et al. The company has developed a OsteoAnalyzer which is small, accurate and relatively inexpensive for measuring calcaneal density. Two units were sent to Japan in 1989 and resulted in Japanese government approval, Japanese patents, and purchase orders. Now Osteon cannot make the $40,000 machines fast enough to supply the Japanese market ...

NINGEN DOKKU (literally "human dry dock") refers to an annual executive physical for top Japanese executives. Blake Waterhouse, Straub CEO reports that Straub Clinic and Mitsubishi Materials Corp of Tokyo will conduct Hawaii vacation/health evaluation programs starting in 1992 with 500 executives coming the first year. The package includes first class airfare, 2 nights lodging at Straub, health screening, and 4 nights at The Lodge at Koele. The idea began with a casual conversation 3 years ago on the Big Island between 2 occupational health specialists, James Langworthy of Straub and Eiji Yano, medical advisor to Mitsubishi Materials ...

News Briefs

Julia Frohlich, Blood Bank of Hawaii president since 1985, was appointed to the First Hawaiian Bank's board of directors by CEO Walter Dods Jr. Julia becomes the first woman director in the 132-year history of First Hawaiian ...

Investor-entrepreneur Harry Weinberg left an estate valued at more than $900 million. His foundation made 2 recent contributions to the Variety School of Hawaii; a $1 million cash contribution for a perpetual endowment fund and an additional $25,000 for general support.The Variety School celebrated its 30th Anniversary on October 16 honoring co-founder Cal Sia ...

Orthopod Douglas Hiller of Pali Momi is chief medical officer for the Triathlon Federation-USA and was at the October Ironman Triathlon in Kona drawing pre- and post-race blood specimens from 50 athletes. The blood will be analyzed for fluid, magnesium and electrolytes and the results will be published in future medical journals. Douglas reports: "The race offers an ideal environment for collecting data on the endurance athlete. I've been conducting tests for about 8 years, and there is still much to learn." Douglas, a former Punahou school athlete has finished 3 Ironman races and admits swimming, biking, and running non-stop for 9 to 18 hours is not for everyone ...

"The FBI's Jim Freeman recently presented an award to Emergency Room Doc Wes Young for his volunteer services with the bureau's SWAT team. Young teaches agents how to handle gunshot and stab wounds, among other things. Young doesn't sit on the side. He trains with the SWAT team in rappeling, weapons and tactics." (From Wood Craft — by Ben Wood)

Abraham Nomura of Kuakini Cancer Center and Julia Parsonnet of Stanford University, in separate studies, helped link helicobacter pylori as the cause of 60% of stomach cancers. Abe's study was conducted on 109 stomach cancer patients and 94% had been infected while only 75% of a healthy comparison group had been infected. The Stanford study was conducted on 372 cancer patients with 84% infected compared to 61% in a comparison group. Both studies show that stomach cancer patients were more likely to have had a helicobacter infection even 15 or 20 years earlier. The separate studies were published in the October 17 issue of the *New England Journal of Medicine*.

Honored, Appointed and Elected

At the October 11 HMA Presidential Inauguration Banquet at The Westin Kauai, Allan Kunimoto was honored as the AH Robins Physician of the Year; Senator Ann Kobayashi was named HMA Legislator of the Year for her efforts in tort reform and in obtaining higher Medicaid reimbursements; and Gwen Fu, wife of Maui pediatrician Denis Fu was elected the 1992 president of the HMA Auxiliary ...

Orthopod Allen Richardson, a 1965 Punahou grad was named Punahou School trustee. Allen has been team physician for the UH Women's athletic program for 12 years and team physician for every U.S. Olympic swimming team since 1980 ...

Oncology Dialogue

Two men, a 65-year-old and a 75-year-old, with gastric Ca and mets were presented and discussed. Moderator Glenn Kokame waxed philosophical: "At Kuakini we see an average of a case a week or around 50 cases a year with a 25% cure rate. KMC sees more cases than MD Anderson." Pathologist Grant Stemmerman commented: "We are interested in familial forms of gastric Ca. Out of 242 index cases, we have 16 families with 3 or more cases. One family had 4 gastric and 4 colon cancers. There seems to be a relation between gastric and colon cancers, perhaps some genetic association." Surgeon Scott Hundahl suggested, "If you have gastric Ca in your family, marry someone whose family doesn't." Glenn inquired: "Are there any blood tests like CEA to detect gastric Ca?" Stemmy: "The PG I to PG II ratio has a 96% sensitivity and 30% specificity. H. Pylorii antibody is 94% positive in gastric Ca and a 74% in control. But the strongest predictor is a smoking history." Stemmy later added, "Recent studies in Italy have shown that helicobacter emit toxins which increase cell replication. Gastric Ca is highly associated with smoking, history of high acid output, and propensity for ulcers and with hiatal hernia ..."

Letters to the Editor

(Two thought-provoking letters)

Bruce Chrisman's letter to the editor appeared in the August 26 *Honolulu Advertiser:* "Not too long ago, a well-known Hawaii physician, Dr Rick Williams, was arrested on multiple charges for an incident involving a female acquaintance who had voluntarily accompanied him to his office in an after-hours setting. No one was injured and he and she had quite different views of what happened.

Dr Williams was a long-time resident and had no criminal record. Nonetheless a Hawaii judge set Dr Williams' bail at $1.4 million. Because of this bail, Dr Williams spent a long time in jail after his arrest; there was tremendous adverse publicity and his thriving practice was ruined. Subsequently, the Prosecutor's Office dropped all but one lesser charge against him. He is struggling to rebuild.

I have been appalled in recent months at the low bails set in Hawaii for other citizens involved in major witnessed crimes in which there was heinous action, severe violence or death. Recently, a Milwaukee man had been found to have killed, dismembered and sometimes eaten 17 people and his bail was set at $1 million. Further, a couple who recently came to Hawaii had just been charged with first degree murder for the senseless shooting death of 2 Hawaii brothers in Waikiki. His bail is set at $220,000 and hers at $95,000.

Do others besides me believe that judges show gross prejudice or enormous variation in the setting of bails and the freeing of suspects?"

An equally thought-provoking letter to the editor was written by F Don Parsa and appeared in the August 31 *Honolulu Advertiser:* "Recently, *The Advertiser* has published articles regarding the Japanese apologizing for the Pearl Harbor attack. I find such apologies as absurd as the original acts of violence.

Both the Pearl Harbor attack by the Japanese and the atomic bombing of Hiroshima and Nagasaki by Americans were great tragedies reflecting mankind's cruelty and madness in solving geopolitical differences. Historically, apologies have been perceived as acts of submission and humiliation, creating frustration and anger in the apologizing nations.

I'd like to suggest that commemoration of such historic tragedies should be used as opportunities to bring nations and people closer together.

(Continued) ➤



RUN A SPECIAL PRACTICE.

Today's Air Force has special opportunities for qualified physicians and physician specialists. To pursue medical excellence without the overhead of a private practice, talk to an Air Force medical program manager about the quality lifestyle, quality benefits and 30 days of vacation with pay each year that are part of a medical career with the Air Force. Discover how special an Air Force practice can be. Call

USAF HEALTH PROFESSIONS
TOLL FREE
1-800-423-USAF

AIR FORCE

SHERATON MAKAHA RESORT AND COUNTRY CLUB



Unlimited Golf For Kamaainas

$69 Early Birdie PLUS
Room and unlimited golf. Includes sunrise & twilight tee times. Mon.-Fri. ($85, Sat. & Sun.)

$75 Whole-In-One PLUS
Room and unlimited golf. Includes prime tee times. Mon.-Fri. ($91, Sat. & Sun.)

To our room and golf packages, we've added the one thing you really wanted...MORE GOLF! Now, for a limited time only, our golf "PLUS" packages give you unlimited golf on the day you play your scheduled round of golf. Accept the challenge of Oahu's highest-rated U.S.G.A. course. Make your reservations now. Call 695-9511.

Rates are per person, per night, based on double occupancy & subject to availability. Offers are for a limited time only and do not include applicable state taxes. Single golfer rates available. Not applicable to groups. Proof of Hawaii residency required.

Sheraton Makaha
RESORT & COUNTRY CLUB
OAHU
ITT Sheraton

If you do business in Hawaii . . .

and find it valuable to know who's suing who or who's getting hit with tax liens, going bankrupt, getting incorporated, selling property, being dissolved, or getting promoted

. . . we have news for you

PBN PACIFIC BUSINESS NEWS

For information call 521-0021.

NEWS AND NOTES

(Continued from page 21)

In a spirit of ohana and aloha, let us invite our Japanese friends to Hawaii on these occasions, not to make apologies, but to join hands in reverence for life. Only then can we develop ways of promoting global peace and security and enhance the prospect of survival and happiness into the future."

Miscellany

Jesus and Moses took a day off to golf. On the 120-yard water hole, Moses grabbed his 5 iron and got to within 10 feet of the hole. Jesus chose his 7 iron. Moses advised: "Use your 5 iron." Jesus: "If Arnold Palmer can reach with his 7 iron, so can I." So Jesus took a mighty swing with his 7 iron and the ball went kerplunk into the pond. Moses said, "I'll get your ball." And he parted the waters and retrieved the ball. Jesus still confident about his golf skill took another swing with his 7 iron and again the ball dropped into the pond. He calmly walked on the pond surface and reached down for his ball.

Meanwhile, the foursome in the back was getting antsy. Someone yelled, "Who do you think you are? Jesus Christ?" Moses yelled back, "He thinks he is Arnold Palmer."

(A churchgoer heard Chew Mung Lum, a strong 15 handicapper, include this joke in his sermon one Sunday in August.)

■

Perspective

For years that was my bed
With that great swirled walnut headboard
Where I worked late and pondered and read
(Then slept while my memories were stored)

But the view those years from my bed
Was a closet, a door and a wall
With windows at my elbows instead
Of rearranging to see windows and all.

Now I'm back home in that bed
And a wonderful thing has occurred
By someone just using their head
The soul of that room has been stirred.

By changing the position of the bed
I see magnolias and columns and birds
Instead of a wall rather dead,
And the beauty is beyond all my words!

Perhaps there's a lesson in that bed
When vision and purpose have dissolved
And life's just a bore — or a dread —
By a change of direction it's solved.

The simplicity of moving that bed
Suggests there's no need for a fit
We need not have battled and "bled" —
Just changed our perspective a bit!

Robert S Flowers MD
May 28-30, 1985

Maka O Ka Kauka

Russell T. Stodd MD

If any idea can survive a bureaucratic review and be implemented, it wasn't worth doing.

The proposed cataract PPO demonstration project which the Health Care Financing Administration had intended for the Albany/Troy New York area, has been cancelled. The reason given was "lack of interest." So now, Ms Wilensky and advisors are scouting for a replacement site, still to be determined. Leadership of the American Academy of Ophthalmology, which has fought so vigorously to derail the scheduled cataract surgery PPOs, might take part. If HCFAs cataract surgery PPOs are truly as ugly as forecast by our AAO, then the whole idea should die the natural death of a project that is simply ignored. Additionally, anyone who gets in bed with HCFA with the current administration budget, is certain to skate on a narrow margin of profit. Furthermore, to participate in this project is reminiscent of one who feeds a crocodile — hoping that it will eat him last.

It is amazing how complete is the delusion that beauty is goodness.

The October 1991 meeting of the American Academy of Ophthalmology in Anaheim revealed a rather striking demonstration of the power of the technology driving the practice of ophthalmology, and medicine in general. Three huge exhibit rooms were devoted to the multitude of devices, machinery, tools and techniques in current and projected use. That the tail is wagging the dog is all too obvious, especially considering the outright financial gifts to the AAO from several major corporations, eg, Allergan, Alcon, Zeiss, et al. The fact is that medicine has undergone a metamorphosis from the art/science of 25 or 30 years ago, into a true medical-industrial complex in which industry dictates the direction, the utilization and in large part, the expenditures of our profession. It is not altogether pretty.

(Continued) ➤

NOW IS THE TIME

FAIRWAY TERRACE

Affordable investment properties with excellent terms are still available on the Big Island of Hawaii!

- Phase II units priced from under $100,000 fee simple
- Suitable for investment or 1031 exchange
- Many units on golf course
- Appealing amenities for owners & renters

Call the site office at 1-883-8787

COLDWELL BANKER

McCORMACK REAL ESTATE

Independently Owned & Operated

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

MCAT
Medical College Admission Test
DAT
Dental Admission Test
Test Your Best
Classes Forming Now.

If you or someone you know is preparing for any of these exams, call us immediately and be sure to..."Test Your Best".

STANLEY H. KAPLAN
Take Kaplan Or Take Your Chances

2875 South King Street • Hon. HI 96826

946-5600

UNTIL THERE IS

NO LONELINESS,
NO DESTITUTION,
NO SICKNESS,
NO WAR . . .



Photo Credit: Danna Martel/Camera Hawaii

Join the Life Team!

Please send your contributions to...

American
Red Cross

Hawaii State Chapter
4155 Diamond Head Rd., Hon., HI 96816
☎ 734-2101

Is there any doubt about where medical big bucks go?

Forbes magazine presented its annual list of the 400 richest Americans. Included were the Block family (pharmaceuticals) $700 million, Roy Sorenson (medical devices) $700 million, Alfred Cook (medical devices) $600 million, Stryker family (medical supplies) $370 million, Philip Frost (pharmaceuticals) $340 million, and also one physician, Lazlo Tauber MD. However, he earned $500 million in real estate.

Happiness is the perpetual possession of being well deceived.

Disneyland courteously dedicated one evening to the Academy and friends. Even at 35 years of age, the park is squeaky clean, neat, and continuously beautiful. It is hosed down and steam-cleaned every night, and receives more than 20,000 gallons of fresh paint each year. During the peak season the park employs 12,000 men and women for maintenance and to keep the attractions running smoothly.

Time is the great innovator.

Paul Lichter MD, editor-in-chief of *Ophthalmology,* recently composed an editorial entitled, "Sutures, Cylinders and Straw Men." His remarks centered around the present push for small incision cataract surgery and the perceived necessity to alter one's surgical technique for perhaps limited or transient benefit. The September *Ophthalmology* presented a plethora of letters in response, with both complimentary support for Dr Lichter, and also considerable criticism of his position. It all makes for interesting reading regardless of one's personal bias.

The 11th Commandment — Thou Shalt Not Committee!

The Academy hierarchy has been under attack for its tendency for cronyism, and perpetuation of a limited group to serve in leadership roles. The rank and file were poised to rattle the "chairs" at the annual business meeting, with some heavy proposed by-laws changes. As a compromise, a resolution was passed to establish an ad hoc committee representing an appropriate cross-section, to study the proposed changes and to report back in 1992. In a spirit of cooperation, the parliamentary challenge was shelved for the nonce. At last report, the ad hoc committee had yet to be named.

When you do not know what you are doing, do it neatly.

In a blatantly absurd decision, a jury in Cook County, Illinois, awarded $3.1 million in compensatory damages and $128 million in punitive damages to a 70-year-old man who lost the sight of his eye when he received an ocular injection of an anti-inflammatory drug made by Upjohn Co. The plaintiff claimed that Upjohn did not warn physicians that the drug could cause blindness when injected into the eye. Upjohn will appeal.

"It's a man's world, and you men can have it." — Katherine A. Porter

The physician reimbursement dollar is being ratcheted down, down and down for the next 5 years with Medicare ophthalmic surgery decreasing somewhere in the range of 30+% by 1995. However, resident physicians entering the world of private practice, expect to receive $100,000 or more during the first year of practice. Most intend to join an HMO or group practice facility, according to a Dallas-based recruiting firm. Compare that with the average income of all women physicians, which in 1990 was $93,340. That figure is 57% less than male doctors who needed an average of $146,490. It would appear that an economic incentive for those hiring young physicians would be to hire women, other factors being equal.

No real problem has a solution.

Signs of the times — in New Jersey the Board of Medical Examiners has sent out a new form to physicians requesting information on past mental illness, substance abuse, malpractice, disciplinary action and arrest and convictions. The NJ Medical Society has entered a legal challenge. Hey! What about sexual harassment?

Addenda —

— Men who napped at least 30 minutes a day were 30% less likely to have heart problems.

— There is a new restaurant on the moon — great food, but no atmosphere.

Aloha, and keep the faith.

rts

Book Review

J I Frederick Reppun MD

The New Handbook of Health and Preventive Medicine

By Kurt Butler and Lynn Rayner MD
Prometheus Books; Buffalo NY; 1990

The 450-page paperback with curling cover flaps and orange and white lettering on an attractive cool blue background is in easily readable large print inside — good for cataractous elderly retirees to mull over and reflect on past opportunities for improved health.

Seriously, however, it will be more valuable for the young and growing family. Appropriately, it has a small logo peeping out of the lettering on the cover, a logo akin to that of the AAFP, the American Academy of Family Physicians, except that pater familias is in the middle, the tallest and the most commanding figure, bracketed by a mother and one small child.

The book is simply and conveniently divided into 4 sections that do provide the reader with an overview of modern thinking on matters that are now of concern to everyone.

We disciples of Hippocrates are no longer the know-all, be-all to our patients. Most of the latter are educated enough in matters medical through the media, via advertising as well as by serious instruction, to be able to challenge us physicians (eg ask for second opinions) on whatever diagnostic or therapeutic advice we give our patients.

The 4 sections cover: (1) **Healthy Habits** (of care of self that prevent a lot of illnesses, injuries and degenerative diseases as well as saving dollars); (2) **Common Diseases** (the usual afflictions of men, women and children who live in an overcrowded, polluted and stressful environment; that are mostly minor in nature and "will be better in the morning" without the need to rush to a hospital ER for expensive medical technology); (3) **Self-Care and Ratio-**

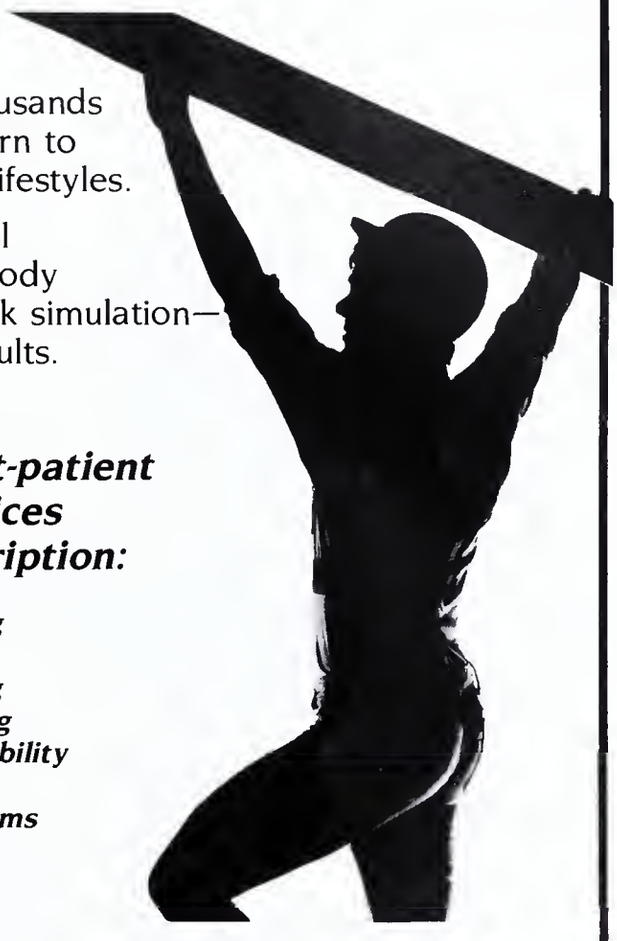
(Continued) ➤

Results

In rehabilitation it's the only thing that counts.

CHART has helped thousands of injured workers return to their jobs and normal lifestyles.

CHART's active physical rehabilitation of total body reconditioning and work simulation— 12 years of proven results.



Comprehensive out-patient rehabilitation services available by prescription:

- ***Full-Body Reconditioning***
- ***Work Simulation***
- ***Activities of Daily Living***
- ***Body Mechanics Training***
- ***Work Capacity and Disability Evaluation***
- ***Work Endurance Programs***
- ***Back Injury Prevention***
- ***Back and Neck School***
- ***Weight Management***

CHART®
Comprehensive Health and Active Rehabilitation Training

1505 Dillingham Blvd. #110
Honolulu, HI 96817
Phone: 841-6006

94-810 Moloalo Street
Waipahu, HI 96797
Phone: 671-1711

This Number Could Save Your Life

524-1234

Neighbor Island Residents Call Collect

Cancer Information Service

CLASSIFIED NOTICES

To place a Classified Notice, MEMBERS, please call Association Office at 536-7702. NON-MEMBERS, please call Leilani at 521-0021. 4 line min., approx. 5 words per line. Payment must accompany order.

EMPLOYMENT OPPORTUNITY

POSITIONS AVAILABLE

Physician Placement Hawaii has openings for physicians & other medical professionals all across the U.S. Mainland as well as here in Hawaii. We also have candidates interested in a Hawaii position. Call Earl Pajan at 395-7099.

STAFF PHYSICIAN

Raytheon Services Nevada is currently offering a unique opportunity to a qualified medical professional. It's the chance to play a key role in a large primary ambulatory care clinic located at Johnston Atoll, about 800 miles southwest of Honolulu.

This tropical setting offers a comfortably warm climate year round, along with an extensive range of recreational activities including excellent dining facilities. The professional environment features a full range of diagnostic, laboratory and emergency equipment, as well as a highly qualified support staff.

We're currently seeking a Staff Physician for the delivery of adult and occupational medicine to help us provide Base Operation Services in support of the U.S. Department of Energy in the world's only operating chemical demilitarization facility. This is an unaccompanied position.

In return, we're offering a very attractive compensation and benefit package including housing, utilities (except telephone); generous vacation; medical, dental, life and disability insurance, pension and savings plans.

For immediate consideration, please forward your Curriculum Vitae in confidence to Ken Keeler, Human Resources, Manager, Raytheon Services Nevada, P.O. Box 29939, Honolulu, HI 96820-2339, U.S. citizenship required. An Equal Opportunity Employer.

MEDICAL ARTS CLINIC — positions available for BC/BE Internal Medicine and Family Practitioner with small group practice in Central Oahu. Send CV to Keith Katano, Administrator, 302 California Ave., #106, Wahiawa, HI 96786 or call 808-622-1618.

Opening for Internal Medicine/Family Medicine/Primary Care available. Call 262-6403.

FOR SALE

MIDMARK 404

Doctor's exam table. Like new condition. $1200/offer. Phone 422-9999

Established general practice in Waipahu for sale. Terms negotiable. Call 671-3931.

OFFICES

ST. FRANCIS MEDICAL CTR.

Fully furnished office space with 3 exam rooms avail. in the Medical Office Bldg. 1st floor across from pharmacy. Turnkey operation, ready to go. Contact: Office Manager 536-2261.

MAUI — Wanted: Neurosurgeon, psychiatrist or other compatible specialist to share 1,600 sq. ft. office and staff with an established neurologist. Call 877-5811.

BUSINESS OPPORTUNITIES

JOINT VENTURE CLEARINGHOUSE

"Safe Harbor" restrictions are just the beginning. We offer a constructive response. Includes but is not limited to cardiovascular labs, MRI, CT, sonography, mammography, nuclear, physical therapy, & DME entities. For more info., we invite managing partners to call: 800-388-5977

SAIL BOAT PARTNER WANTED

34' Cutter. Bristol, quality throughout. Perfect Inter-island yacht. Spacious, teak interior. Curise equipped. Nominal dn. 1/3 exp. Bob 247-0861

REAL ESTATE

KAILUA BEAUTY

Inviting contemporary executive style 2,286 SF home. 4 bdrm., 2 ba., gourmet kitchen. 13,988 SF tropical grounds on lovely beachside lane. An entertainers dream. $850,000. FS. Call Richard Boyd (RA) 395-9395

WORRALL-McCARTER INC. REALTORS

MANOA

Best street. 4 bd., 3 ba. Divorce forces sale. Gaylyn Li-Ma 530-1266 (pager) 946-0646

SERVICES

ATTENTION RADIOLOGISTS!!!

How do you spell relief?! Sheryl North, M.D.! Avail. for Locum Tenens Immed!! Call 310-839-0733 or write 5878 Bowcroft St., Los Angeles, CA 90016.

LOCUM TENENS PROVIDED

Internal Medicine and Family Practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS: Coverage for family practice, pediatrics and internal medicine. I can cover your medical office practice during your vacation and CME leave. For further information contact: Ruby De Alday, M.D., Family Practice, 2452 Tusitala St. PH #3, Honolulu, HI 96815, Ph. (808) 926-4078.

BOOK REVIEW

(Continued from page 25)

nal Use of the Health Care System (when afflictions are of a more serious nature, even dangerous when misdiagnosed and wrongly addressed by the nonprofessional "self", the patient, a relative, friend or the familiar TV ad); and (4) **Drugs and Health** (a good review with caveats, do's and don't's in the fields of the OTC items, of prescribed medications, all taken by the palmful; of mind-boggling, addictive and lethal drugs. Such fields are often minefields through which our young must pass like Paul Bunyan in Pilgrim's Progress).

Butler and Rayner tread carefully, logically and reasonably accurately through this modern maze of medical knowledge. We can find no glaring inaccuracies, no out-in-left-field ideas. The presentations are sensible. There is no dogma expounded as oracular. If the book were available and in full view of every member of a lay household, it would teach a lot of good stuff to set straight what comes through the print media, radio and TV, stuff that is confusing to the gullible public.

However, there is one fault, perhaps. Despite providing useful and sensible comments in the book; despite the obvious collaborative research that the authors have put into the preparation of this compendium of things medical, they have failed to back up their reasonable findings and advice by any bibliography to which the book's readers could be referred if they doubted or challenged its credibility. For example, on page 225 it states:

"If in fresh water you float easily, your [body] fat content is 25%; if you float only with your lungs full, you are about 22% fat; if you sink slowly but definitely even with your lungs full, you are less than 20% fat; if in salt water you sink even with your lungs full, you are 13% fat, or less."

Wherever did that "fact" or "fancy" come from ?

Kurt Butler MS is a science teacher and nutritionist and has written extensively on health subjects. Lynn Rayner MD is an Internist at Straub and an assistant professor of medicine at the UH School of Medicine.

J I Frederick Reppun MD

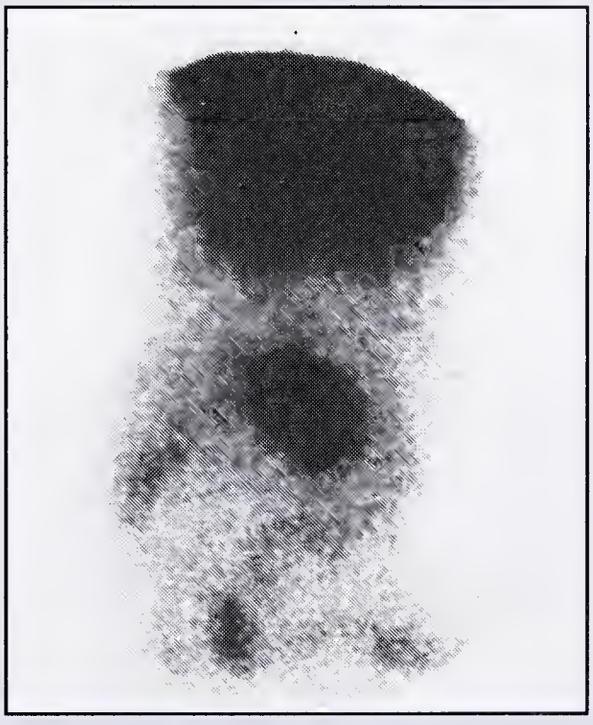
NUCLEAR MEDICINE TEACHING FILE

WHITE CELL SCANNING IN FEVER OF UNDETERMINED ORIGIN

38 year old patient with a fever of undetermined origin postoperatively but no localizing sign.



ANTERIOR PELVIS: Intense white cell accumulation in an abscess overlying the right sacroiliac joint.



RIGHT LATERAL: The right lateral demonstrates that the abscess is anterior to the sacroiliac joint.

Radiolabeled WBC scans should be used for FUO's, osteomyelitis and other inflammatory conditions.

Nuclear Medicine — Non-invasive, physiologic imaging

PACIFIC RADIOPHARMACY, LTD.

A JOINT VENTURE OF
QUEEN'S MEDICAL CENTER, KUAKINI, SAINT FRANCIS,
STRAUB AND THE HONOLULU MEDICAL GROUP.

Bring Our Bank Into Your Office With Our OnLine Business Banking Service

Now you can do your banking at First Hawaiian without leaving your office.

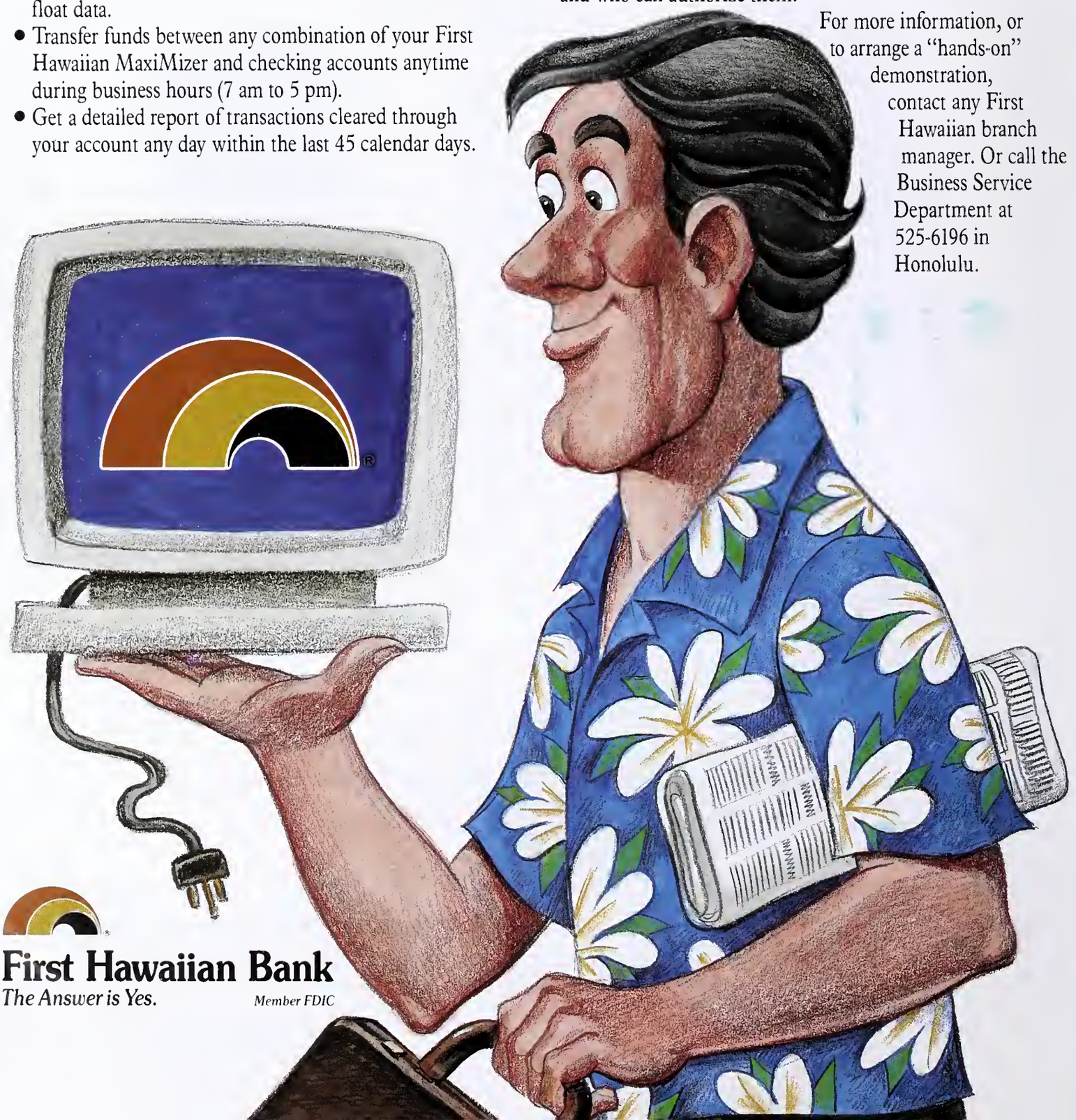
With our 24-hour, 7-days-a-week OnLine Business Banking Service, all you need is a standard terminal or microcomputer with telecommunications to:

- Obtain instant access to information about your business checking or MaxiMizer Money Market accounts at First Hawaiian.
- Find out current balances (both ledger and collected), and float data.
- Transfer funds between any combination of your First Hawaiian MaxiMizer and checking accounts anytime during business hours (7 am to 5 pm).
- Get a detailed report of transactions cleared through your account any day within the last 45 calendar days.
- Obtain the balances of your accounts at other financial institutions.
- Find out current foreign exchange rates.

Let your computer show you how it works.

Easy step-by-step instructions from the computer make the service very "user-friendly." The strictest security is provided, because you choose your own security code. And you decide who has access, who can make transfers, and who can authorize them.

For more information, or to arrange a "hands-on" demonstration, contact any First Hawaiian branch manager. Or call the Business Service Department at 525-6196 in Honolulu.



First Hawaiian Bank
The Answer is Yes. Member FDIC

Hawaii Medical Journal
UCSF LIBRARY
Received on: 02-25-92

Journals
71
HA
968

FEBRUARY 1992
VOL. 51, No. 2
ISSN: 0017-8594

Hawaii Medical Journal

CONTENTS

EDITORIALS 32
Prescriptive privilege by permit
The patient's right to die
J I Frederick Reppun MD

TOWN AND GOWN: 35
1991 BIOMEDICAL SCIENCE SYMPOSIUM AND AWARDEES

RADIO-FREQUENCY CATHETER CURE OF RE-ENTRANT 39
SUPRAVENTRICULAR TACHYCARDIAS:
REPORT OF THE FIRST EXPERIENCE IN HAWAII
Edward N Shen MD

THE RIGHT TO DIE AS AN ETHICAL DILEMMA 44
FOR NEW PHYSICIANS IN HAWAII
John F McDermott Jr MD
Jane A Waldron PhD
Danilo E Ponce MD

MAKA O KA KAUKA 47
Russell T Stodd MD

NEWS AND NOTES 49
Henry N Yokoyama MD

U OF CALIFORNIA-SF
LIBRARY
SERIALS DEPT, BOX 0840
530 PARNASSUS AVE
SAN FRAN, CA 94143-0840

HAWAII MEDICAL ASSOCIATION
1856

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of MICRA's tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if California's tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively
Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

HAWAII MEDICAL JOURNAL

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor: J I FREDERICK REPPUN, MD
Founding Editor: HARRY L ARNOLD JR, MD
News Editor: HENRY N YOKOYAMA, MD
Contributing Editors: STEPHEN RPK BRADY, MD, FRANCIS H FUKUNAGA, MD,
Editorial Assistant: DAISY CANITE
Publisher: STEPHEN S LENT

Editorial Board
NORMAN GOLDSTEIN, MD,
ROBERT TS JIM, MD
JAMES LUMENG, MD
FRANCIS D PIEN, MD

Publications Committee: MYRON E SHIRASU, MD (Commissioner)
HENRY N YOKOYAMA, MD (Chairman)
ERLAINE BELLO, MD
STEPHEN RPK BRADY, MD,
NADINE BRUCE, MD
NATHANIEL PH CHING, MD,
RICHARD CHUNG, MD
ALVIN FURUIKE, MD,
FRED GILBERT, JR, MD
ROBERT HOLLISON, MD
AMOD JAIN, MD
ROBERT JIM, MD,
JAMES LUMENG, MD
BAL RAJ MEHTA, MD
FRANCIS PIEN, MD,
J I FREDERICK REPPUN, MD,
KIM THORBURN, MD
TERRY CY WONG, MD
GWEN FU (HMA Auxiliary)

OFFICERS
President: STEPHEN J WALLACH, MD
President-Elect: JEANETTE HJ CHANG, MD
Past President: JOHN T MCDONNELL, MD
Secretary: ANDREW DON, MD
Treasurer: JOHN S SPANGLER, MD

County Presidents
Hawaii: RICHARD KM LEE-CHING, MD
Honolulu: CALVIN YH WONG, MD
Kauai: LARRY MAGNUSSEN, MD
Maui: LEONARD H SAKAI, MD
West Hawaii: MINOLU R CHENG, MD

Delegates to AMA
CALVIN CM KAM, MD
RUSSELL T STODD, MD
Alternate Delegates to AMA
STEPHEN J WALLACH, MD
JOHN T MCDONNELL, MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237-640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Non-member subscriptions are $18. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Printed in U.S.A.

The Backworks Difference

Behind the Scenes...



Looking at all the issues to help you fairly and effectively manage your patients.



BACKWORKS HAWAII INC.

456-7077
945 Kam Hwy.
Pearl City, Hawaii

Neck and Back Rehabilitation

FMGEMS
NMB
FLEX

We know What's Tested.
We know The Answers.

We are the experts at preparing foreign medical graduates for the FMGEMS, NMB and FLEX. Thanks to our many years of experience with all three tests, we know the content of each of the specific subject areas. Better yet, we can teach you how to select the right answer choices. Our Review Courses are modular and self-paced. Our Centers are open days, evenings and weekends. Call us today!

STANLEY H. KAPLAN
Take Kaplan Or Take Your Chances

2875 South King Street • Honolulu, Hawaii 96826
946-5600

Highlights of the HMA Council Meeting of January 10, 1992

Members present at the meeting were: S Wallach, J Chang, A Don, J Spangler, J McDonnell, C Kam, R Stodd, L Howard, M Joshi, R Lee-Ching, R Adaniya, P Blanchette, HH Chun, R Embry, J Kim, R Kimura, S Brady, HKW Chinn, H Fong, M Shirasu, C Kadooka, R Goodale, J Betwee, H Percy, T Smith, G Goto, J Lumeng, W Chang, N Winn, A Kunimoto, M Bainum; J Gaspar - Medical Student Representative; F Reppun - HMJ Editor; J Armstrong - Resident Physician Representative - Tripler AMC; V Woo - Legal Counsel, and special guest B Fong - Medical Director-AETNA. Also present was Rosie Villagomez - President of the Medical Student Section. HMA staff present: J Won, B Kendro, N Jones, P Kawamoto, J Asato, J Estioko, L Tong, and M Lindsey- recording secretary.

The Council supported the Tobacco Coalition to conduct a public opinion poll regarding smoking in the workplace and approved $500 as requested.

Access to medical care has become a major issue. The Council approved a *pro bono* form and authorized a survey of physicians who have provided continued care for indigent patients despite personal sacrifice.

The Council adopted the report of the AIDS Subcommittee. Those interested in reviewing it may do so at the HMA office. It is too lengthy and too specific to be included here.

The Council agreed to have a monthly insert: "Health Update," in *Hawaii Family;* it will be overseen by the PR Committee and at no cost to HMA.

The Council supported the concept of creating a chapter of Doctors Ought to Care (DOC) with its primary goal being the education of the community regarding the hazards to health of tobacco smoking.

The Council approved the Ilikai Hotel as the site of the 1992 HMA Annual Meeting in Honolulu on October 9-11, and for the 1993 HMA Annual Meeting to be held at the Intercontinental Resort at Wailea, Maui, on October 8-10, 1993.

The Council approved the Legislative Committee recommendations:

a) to support the proposed bill to extend the needle/syringe exchange program;

b) to support the proposed bill to create a special medical license for educational and teaching purposes;

c) *not* to support the bill to revise Section 455, HRS, to allow a naturopathic physician to be licensed in the State of Hawaii without examination if the person holds a valid license in another jurisdiction; and

d) *not* to support a revision of Section 455-1, HRS, that would expand the scope of practice by naturopathic physicians to include prescribing or dispensing of prescription drugs.

Bernard Fong, Medical Director at Aetna-Medicare and HMA President Stephen Wallach presented the changes in 1992 in the Medicare program.

Andrew Don MD
Secretary



Prescriptive privilege by permit

It was somewhat unfortunate that the HMA House of Delegates, last October at the 135th Annual Meeting on Kauai, turned back for further review the pressing issue of Prescriptive Powers for Nurse Practitioners. We call the action unfortunate because the issue is likely to be decided in the 1992 session of the Hawaii State Legislature. The makers of laws in our state are faced with the difficulty of deciding, as lay people, an issue that has the health care profession divided and polarized.

Ernest Bade and Janice Friend, representing the HMA Nurses Prescribing Ad Hoc Committee, presented Resolution No 6 to the House.

Knowing that this resolution would generate a lengthy discussion, particularly since it had been recommended a "no" vote by the Reference Committee on Finance and Miscellaneous Business, the Speakers had arranged for it to be considered by the House toward the end of the last day's agenda. Their intentions were honorable; otherwise, the entire agenda might have been stalled.

In retrospect, that was the first of the unfortunate happenings. True, the sessions ended and the meeting was adjourned at a reasonable hour. However, as has happened too often at these HMA annual meetings, particularly when held on an island other than Oahu, many delegates have to leave prior to

(Continued) ➤

ONCE DAILY 180mg Calan® SR verapamil HCl 180 mg
SUSTAINED-RELEASE CAPLETS

The recommended starting dose for Calan SR is 180 mg once daily. Dose titration will be required in some patients to achieve blood pressure control.

A lower initial starting dosage of 120 mg/day may be warranted in some patients (eg, the elderly, patients of small stature).

Constipation, which is easily managed in most patients, is the most commonly reported side effect of Calan SR

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol and propranolol clearance may occur when either drug is administered concomitantly with verapamil. A variable effect has been seen with combined use of atenolol. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Verapamil may inhibit the clearance and increase the plasma levels of theophylline. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. There was no evidence of a carcinogenic potential of verapamil administered to rats for 2 years. A study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes, reversible non-obstructive paralytic ileus. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, galactorrhea/hyperprolactinemia, increased urination, spotty menstruation, impotence.

4/11/91 • P91CA6277V

Address medical inquiries to
G.D. Searle & Co.
Medical & Scientific
Information Department
4901 Searle Parkway
Skokie, IL 60077

SEARLE *G.D. Searle & Co*
Box 5110, Chicago, IL 60680

A91CA6148T



adjournment — to catch a plane and return home at a reasonable hour. The resultant "thinned" quorum does not make for good participatory democracy, nor a properly reasoned vote, especially on an important issue that is to determine HMA policy for the next year.

The Bade/Friend Resolution, in essence, recommended that *"the HMA support prescriptive powers for nurse practitioners, only under the following conditions,"* and there were some 10 restrictive conditions spelled out.

(The current policy of the HMA is a blanket NO.)

The lengthy discussion was fraught with attempts to propose amendments. Perhaps the most cogent ones were to change the word "support" to "oppose" and to change the accompanying modifiers from "under ..." to "unless the following conditions are met:" and the other was that both the Medical Practice Act and the Pharmacy Act would have to be amended. The polarization took place between those who favored an absolute "no prescriptive privilege to be given to anyone without an MD degree" to one that "would allow it under close supervision by a licensed MD." Spokespersons for the Hawaii Federation of Physicians and Dentists were the most adamant in favoring the former, whereas others backed the intent of the ad hoc committee as described below.

The unfortunate thing about the discussion and the vote to defeat the Resolution was that the HMA was labeled as being adamant about preserving the status quo. This does not reflect the fact that at the Reference Committee hearings, speakers were evenly divided, some 20 on each side, pro and con.

An HMA poll of its members taken much earlier and prior to debate had indicated, on the other hand, a 63% opposition; 37% — a bit more than a healthy third of our members — favored giving prescriptive rights to CNPs and to Certified Nurse Midwives, *but with restrictions.*

The HMA policy has been criticized for being "not in line with national policy, wherein 38 states do allow prescriptive privileges." However, that is <10% of the truth, because only 3 of the states allow such without MD supervision.

Since the physician is the one responsible, and liable, it should be up to him or her as to the limits of such supervision for the following reasons:

(1) This is already going on in the practice of medicine in many venues;

(2) the capabilities of RNs and other highly trained paramedics have increased tremendously during the past 50 years; however, they are still short of the qualifications of a physician;

(3) One would not expect such a paramedic to want to assume the awesome responsibility of a modern physician, who faces the worrisome prospect of doing more harm than good to the patient with powerful drugs and invasive techniques, and who has been saddled with a huge burden of liability under the law by our society in the case of even a mal-happenstance and in the absence of mal-practice;

(4) therefore, depending on each physician's willingness to assume the responsibility for an extender, depending on the competence and reliability of that extender, depending on the trust between physician and extender, prescriptive powers could be delegated to such extenders, be they registered nurses, trained assistants, optometrists, or psychologists (for starters), who are willing and able to assume responsibility and liability, in close conjunction with a physician who is equally willing to assume the burden of carrying someone besides himself;

(5) the ultimate consideration should be whether the patient would benefit rather than be harmed by such a system of medical practice and not whether it be a matter of whose ox is gored. We prefer the term collaboration with, instead of suprvision by, a physician.

J I Frederick Reppun MD
Editor

The patient's right to die

In this issue of the Journal we have an article emanating from our school of medicine. McDermott et al report on a survey of graduating medical students that assesses what the latter considered to be the most important ethical dilemma that these students faced during their clinical years at the school. It was, indeed, in large measure the doctor-patient-family confrontation with the patient's wish to be allowed to die.

It is interesting to note that the issue was addressed and the survey done several years prior to the Supreme Court's ultimate decision in the Cruzan case in June 1990. One can say that the current rise of this issue to the forefront of attention on the part of the lay community dates from not long before the 1990 Court decision.

However, our young *kahuna haumana lapa'au* had already experienced the dilemma which physicians down through the ages have had to face at the bedside of the dying patient.

The national debate on the dilemma has evolved to a new level: Rational suicide. Our readers might like to be referred to the October 10 issue of the *NEJM*, pp 1100-1102; the Sounding Board has a well thought-out treatise on the subject with a good list of references at the end.

J I Frederick Reppun MD
Editor



"Everybody hopes you'll remember next time dear ... ya never walk in front of a TV during a 95-yard punt return!"

Town and Gown: A Report

The annual Biomedical Sciences Symposium at the John A Burns School of Medicine took place at the University of Hawaii on the 16th of November 1991. It consisted of day-long oral and poster* presentations by students at many different levels of learning at the University, reporting on and competing for awards for doing scientifiic research. As Dean Christian Gulbrandsen puts it:

> The Biomedical Sciences Symposia began in 1972 as a student Science Symposium to provide medical students with an atmosphere for "creation of new knowledge in the field of biomedical sciences." Original papers were solicited from medical students, graduate students in the field of biomedical sciences, house staff in University-affiliated teaching hospitals and undergraduate students in the health sciences.
>
> A committee determines the scientific program, including the selection of papers for presentation, a policy on awards, the selection of judges, invites prestigious speakers to present the latest in biomedical research, and decides other matters.

We were invited to join the Committee a year ago by Tom Kosasa who, with Gwen Naguwa, were 2 of the 3 physicians on the Committee chaired by Richard John Guillory PhD, a professor of biochemistry and biophysics at the UH. Other members of the Committee are John Hunt PhD in genetics, Causey Whittow PhD in physiology, Dorsey Stuart PhD in genetics, Bert Lum PhD in pharmacology, Bradley Wong MD in surgery, Edwardo Porto PhD in pathology, Joel Hanna PhD in physiology and others who come and go.

It was a novel experience for one long out in the trenches practicing medicine, to return to the level of an university devoted not only to teaching but also deeply involved in basic research. To be a participant as one of the judges in determining which researcher out of 45 who submitted papers should receive one of the 20 awards was a rather severe challenge.

We enclose a listing of the winners as submitted by Dr Guillory, and we congratulate them for their efforts.

The Symposium was preceded by the presentation by the 1991 Kaiser lecturer Denham Harman MD on November 14 on "The Biology of Aging" that was reported in the December issue of the *Journal*. Dr Harman is the Millard Professor of Medicine and Biochemistry at the University of Nebraska Medical Center. He spoke again in the afternoon of the day of the Symposium on "The Free Radical Hypothesis of Aging."

At the evening's banquet that concluded this annual event at our medical school, we were honored to be able to listen to the words of a man who was in the forefront of a march in South Africa against apartheid, featured prominently on television worldwide, a tall White man, a reverend and a physician: Ernle Young, the bio-ethicist who is the author of the

(Continued) ➤

DOUBLE TAX-FREE INCOME

Yes, that is what you get as a Hawaii resident when you invest in Hawaiian Tax-Free Trust!

- ▶Experienced locally-based portfolio management by Hawaiian Trust Company, Ltd.
- ▶High-grade portfolio
- ▶Monthly dividend*, by check or reinvested, without sales charge
- ▶Ready liquidity*
- ▶High current return
- ▶Broad diversification of issues and maturities
- ▶Low initial investment of $1,000

PLUS

Municipal bonds provide one of the few remaining ways to earn tax-free income. Hawaiian Tax-Free Trust is an open-end municipal bond mutual fund offering you an easy and simple way to enjoy the benefits of **double tax-free** investment income – **free** of both Federal and State of Hawaii income taxes.**

Aquila Distributors, Inc.
820 Mililani Street, Suite 400
Honolulu, Hawaii 96813

☑ **YES,** tell me more about how I can earn high monthly income and pay no Federal and State Income taxes with the Hawaiian Tax-Free Trust.
Please send a free prospectus containing more complete information, including all fees and expenses. I will read it carefully before I invest or send money.

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Home Phone: (_____) _____
Business Phone: (_____) _____ HMJ

For details, talk to your broker or call the Trust toll-free today!

1-800-228-4227

HAWAIIAN TAX-FREE TRUST

* Share value and dividend rates are not fixed and vary with interest rate fluctuations. Redemptions are at the current net asset value.
** Under certain circumstances, for some investors, a small portion of income received may be subject to alternative minimum tax.

© 1991 Aquila Distributors, Inc.



ONLY ONE H_2-ANTAGONIST HEALS REFLUX ESOPHAGITIS AT DUODENAL ULCER DOSAGE. ONLY ONE.

Of all the H_2-receptor antagonists, only Axid heals and relieves reflux esophagitis at its standard duodenal ulcer dosage. Axid, **150** mg b.i.d., relieves heartburn in **86%** of patients after one day and **93%** after one week.[1]

AXID®
nizatidine
150 mg b.i.d.

ACID TESTED. PATIENT PROVEN.

1. Data on file, Lilly Research Laboratories.

See accompanying page for prescribing information.

© 1991, ELI LILLY AND COMPANY

NZ-2947-B-249304

AXID®
nizatidine capsules



Brief Summary. Consult the package insert for complete prescribing information.

Indications and Usage: 1. *Active duodenal ulcer*—for up to 8 weeks of treatment at a dosage of 300 mg h.s. or 150 mg b.i.d. Most patients heal within 4 weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a dosage of 150 mg h.s. at bedtime. The consequences of therapy with Axid for longer than 1 year are not known.

3. *Gastroesophageal reflux disease (GERD)*—for up to 12 weeks of treatment of endoscopically diagnosed esophagitis, including erosive and ulcerative esophagitis, and associated heartburn at a dosage of 150 mg b.i.d.

Contraindication: Known hypersensitivity to the drug. Because cross sensitivity in this class of compounds has been observed, H_2-receptor antagonists, including Axid, should not be administered to patients with a history of hypersensitivity to other H_2-receptor antagonists.

Precautions: *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests—False-positive tests for urobilinogen with Multistix® may occur during therapy.

Drug Interactions—No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A 2-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a 2-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups.The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a 2-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in 1 fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in 1 fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Worldwide, controlled clinical trials included over 6,000 patients given nizatidine in studies of varying durations. Placebo-controlled trials in the United States and Canada included over 2,600 patients given nizatidine and over 1,700 given placebo. Among the adverse events in these placebo-controlled trials, only anemia (0.2% vs 0%) and urticaria (0.5% vs 0.1%) were significantly more common in the nizatidine group. Of the adverse events that occurred at a frequency of 1% or more, there was no statistically significant difference between Axid and placebo in the incidence of any of these events (see package insert for complete information).

A variety of less common events were also reported, it was not possible to determine whether these were caused by nizatidine.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to 3 times the upper limit of normal, however, did not significantly differ from that in placebo patients. All abnormalities were reversible after discontinuation of Axid. Since market introduction, hepatitis and jaundice have been reported. Rare cases of cholestatic or mixed hepatocellular and cholestatic injury with jaundice have been reported with reversal of the abnormalities after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in 2 individuals administered Axid and in 3 untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of anti-androgenic activity due to nizatidine. Impotence and decreased libido were reported with similar frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Anemia was reported significantly more frequently in nizatidine than in placebo-treated patients. Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Urticaria was reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. The ability of hemodialysis to remove nizatidine from the body has not been conclusively demonstrated; however, due to its large volume of distribution, nizatidine is not expected to be efficiently removed from the body by this method.

PV 2093 AMP [101591]

Additional information available to the profession on request.

Lilly **Eli Lilly and Company**
Indianapolis, Indiana
46285

NZ-2947-B-249304 © 1991, ELI LILLY AND COMPANY

book "Alpha and Omega".

The Reverend Doctor Young's topic was "Contemporary Issues in Biomedical Ethics". One had to listen too intently, so as not to miss a pearl, to be able to take good notes.

In essence, Young's theme was the dichotomy between the individual and his society. He introduced the audience to the Human Genome Project that is concerned with the human conceptus and infant-in-utero and its emergence as a human being. It is not only the woman who actively abuses the embryo by smoking cigarettes, drinking alcohol and using cocaine, but also the woman who is passively abusing it by failing to have her diabetes controlled. The same can be said of the putative father's role. The costs of this individual's "autonomy" are born by society, and they are tremendous. It is a societal concern and obligation, to prevent this abuse and neglect of the conceptus.

Young then addressed the bioethics of gun-control. Obvlously, he was strongly for it, citing the $40 million cost to society the result of the use of handguns. This was another example of the individual's desire for autonomy versus the "common good". He was somewhat but gently critical of the judiciary for favoring, in general, the right of the individual versus that of society, and, surprisingly, put feminist women writers in the same boat with the courts!

In concluding, Ernle Young emphasized the need for remedies as, for example, persistent education, counseling and rehabilitation pre-conception, throughout gestation and after. When asked by a member of the audience whether he had much faith in this, he replied: "I am an optimist; I know it isn't one hundred percent effective, but it is a better way to go than to emphasize punitive measures."

It was an impressive symposium that warranted a larger audience from both "the town" and "the gown" of Honolulu's medical professionals.

J I Frederick Reppun MD
Editor

* For those not familiar with the terminology in the field of biomedical research, a "poster" is not a cartoon or a picture; it is a manuscript in brief, sort of an abstract, except that it uses graphs and tables. At symposia and scientific conferences these are in the form of posters displayed on panels in booths and attended by the author(s) to answer the questions of the viewers.

JOHN A BURNS SCHOOL OF MEDICINE
1991 BIOMEDICAL SCIENCE SYMPOSIUM

SCHOOL OF MEDICINE DEAN'S AWARD

Undergraduate Student Award

Radji O. Tolentino and Patricia A. Couvillon, Bekesy Laboratory of Neurobiology, University of Hawaii, "Choice Behavior in Pigeons"

Medical Student Award

Elmer A. Cheah, Nathaniel Ching MD and Clara Y Ching PhD, Departments of Surgery and Medicine, "Cytokines Tumor Necrosis Factor Alpha (TNFa) and Interleukin-1-

(Continued) ➤

Alpha (IL-1a) Serum Levels in Cancer Patients Receiving Recombinant Interleukin-2 (rIL-2) Immunotherapy"

Graduate Student Award
Li-Xin Zhang, Robert V Cooney and John S Bertram, Molecular Oncology Unit, Cancer Research Center of Hawaii, "Carotenoids Enhance Cell-Cell Communication and Connexin43 Gene Expression Independent of Pro-Vitamin A or Antioxidant Properties"

Postdoctorate Award
Mark Estacion and Lawrence Mordan, Cancer Research Center of Hawaii, "Possible Role of T-Type Calcium Channels in PDGF-Stimulated Mitogenesis in C3H 10T1/2 Mouse Fibroblasts"

Resident Award
Jeffrey P Bourne, Department of Medicine, "Role of Postoperative Residual Contrast Enhancement on CT Scan in Predicting Outcome in Pediatric Medulloblastoma Patients"

SCHOOL OF MEDICINE AWARDS
Obstetrics Award
Raydeen Busse, Department of Obstetrics and Gynecology, "Treatment of Premature Labor with Terbutaline and Magnesium Sulfate Compared with Terbutaline Alone"

Pediatrics Award
Benjamin L Siu, Institute of Molecular Genetics, Baylor College of Medicine and Department of Physiology, University of Hawaii-Manoa, "Congenital Long QT (Romano-Ward) Syndrome"

PBRC Undergraduate Award
James S Hoban and ME Bitterman, Bekesy Laboratory of Neurobiology, University of Hawaii, "Simultaneous Conditioning in Honeybees"

COMMUNITY AWARDS
Ann M Budy Award (Women in Science)
i. **Pre-Baccalaureate Award**
Raquel Wong and Edward J Bylina, Biotechnology Program, University of Hawaii-Manoa, "Analysis of Spontaneous Herbicide Resistant Revertants Derived from Photosynthetic Bacteria in Which Serine L223 of the Reaction Center is Replaced with Alanine"

ii. **Post-Baccalaureate Award**
Lin-Xin Zhang, Robert V Cooney and John S Bertram, Molecular Oncology Unit, Cancer Research Center of Hawaii, "Carotenoids Enhance Cell-Cell Communication and Connexin43 Gene Expression Independent of Pro-Vitamin A or Antioxidant Properties"

American Heart Association Award (Hawaii Affiliate)
MB Eichinger and JR Claybaugh, Department of Physiology, "Hyposia Enhances the Vasopressin Response to Hemorrhage"

Ciba-Geigy Award in Community Service
Kevin Mack and Darith Seng, Department of Anatomy and Reproductive Biology, "The State of Cambodian Health Care"

Merck Sharp and Dohme Award
Feng Ge and Richard J Guillory, Department of Biochemistry and Biophysics, "Characterization of the NADPH Binding Protein of the Leukocyte Oxygen Burst System"

Ortho Pharmaceutical Corporation Award
Quinggen Zhang, **Department of Physiology, "Effect of an** Electromagnetic Field on Avian Embryonic Growth and Function"

Pan Pacific Surgical Association Award
Marc Darrow, Department of Surgery, "Clinical Study on Low Back Pain Before and After Fusion and Wiltse Internal Stabilization"

Roche Laboratories Award
Kathy Tse, Alton L Boynton and Richard E Honkanen, Cancer Reseach Center of Hawaii, "Identification and Characterization of Serine/Threonine Protein Phosphatase Inhibitors"

Sandoz Award in Immunology/Oncology
James Ireland, Department of Genetics and Molecular Biology, "A Study of Alpha Thalassemia"

Smithkline Beecham Pharmaceutical Award
Raquel Wong and Edward J Bylina, Biotechnology Program, University of Hawaii, "Analysis of Spontaneous Herbicide Resistant Revertants Derived from Photosynthetic Bacteria in which Serine L223 of the Reaction Center is Replaced with Alanine"

IAP Pharmaceuticals Award
Deborah J Merritt, Department of Physiology, "The Effects of Age and Sex on the Peripheral White Blood Cell Response to an Immunomodulating Dose of E coli Lipopolysaccharide"

The Upjohn Company Award
Bernadette Batinga, Robert Kinzie and Christina Hazzard, Zoology Department, "The Effect of UV Radiation on Pigment Composition, Growth Rate and Photosynthetic Rate of Dunanella Salina"

David-Geck Award
Becky A Diebold, Richard J Guillory and NV Bhagavan, Department of Biochemistry and Biophysics, "Effects of Lovastatin on Cardiac Bioenergetics and on the Neutrophil Immune Response of Guinea Pigs"

Wyeth-Ayerst Laboratories Award
Michael K Helms, Department of Biochemistry and Biophysics, "Polymerization Phenomenon of Elongation Factor-Tu"

Radio-frequency catheter cure of re-entrant supraventricular tachycardias: Report of the first experience in Hawaii

Edward N Shen MD

Other than atrial fibrillation-flutter, the majority of supraventricular tachyarrhythmias involve either a macro-re-entry circuit utilizing an atrioventricular (AV) accessory pathway or a micro-re-entry circuit inside or around the AV node. The traditional form of therapy has been medical, with suppression by antiarrhythmic agents, most of which carry a heavy side-effect profile. The established alternative for medical therapy has been surgery, with open-chest excisional ablation of the accessory pathway[1] or cryo-modification of the AV node[2]. Even though, as opposed to medical therapy, surgery promises cure, it requires thoracotomy and cardiopulmonary bypass with significant associated morbidity and even mortality, as well as high cost. Ten years ago, the technique of "fulguration" was first introduced, which involved the delivery of an electrical charge through specialized catheters[3]. Our first experience with this technique was reported in this Journal[4]. *Unfortunately, despite being a much better tolerated curative procedure involving a very brief hospitalization, the use of high-energy direct current (DC) shocks is associated with a low but significant incidence of serious complications including cardiac perforation, hypotension, coronary artery spasm, and late occurrence of ventricular fibrillation[5]. Concerns about these potential complications have markedly limited the application of the catheter technique. In the past 2 years, adoption of radio-frequency (RF) current as the energy source has allowed the ablation to be performed in a very efficacious and much safer fashion[6-9]. We would like to report the first experience with this technique in Hawaii.*

Case reports

Case 1 — A 64-year-old retired man with paroxysmal rapid palpitations for 12 years had episodes that were typically associated with severe weakness, lasting up to 16 hours. He had a baseline right bundle branch block and his tachycardia was documented as having the same configuration, with a rate of 165 per minute. He had failed to respond to empiric drug therapy with digoxin and propranolol. Electrophysiologic (EP) study demonstrated classic AV nodal re-entrant tachycardia (down slow, up fast). In the study, intravenous procainamide resulted in suppression of the induction of tachycardia. He responded to the agent clinically but developed lupus syndrome, requiring drug discontinuation.

Therefore, he underwent catheter modification of the AV node. RF current was delivered through an enlarged-tip electrode on a quadripolar electrode catheter at 40 volts in discrete applications of up to 30 seconds. The "anterior" approach was used, which allowed for selective ablation of the fast AV nodal pathway (Figure 1A). Post ablation, the patient had a prolongation of atrial-His (AH) interval (from 90 to 140 milliseconds) and PR interval (from 0.16 to 0.23 seconds) with no tachycardia inducible. There was no evidence of myocardial damage by electrocardiogram (EKG), cardiac enzymes and echocardiogram. The patient was discharged 2 days post-procedure and had no tachycardia recurrence on followup.



Figure 1A. Electrode catheter positions during electrophysiologic (EP) testing and radio-frequency (RF) catheter modification in Case 1. HIS = catheter in His position. RA = catheter in right atrium. RV = catheter in right ventricle. Note the larger tip of the catheter in the His position.

(Continued) ➤

Associate Professor of Medicine
John A Burns School of Medicine, University of Hawaii
Director of Clinical Electrophysiology
Straub Clinic and Hospital

Received for publication on August 23, 1991.

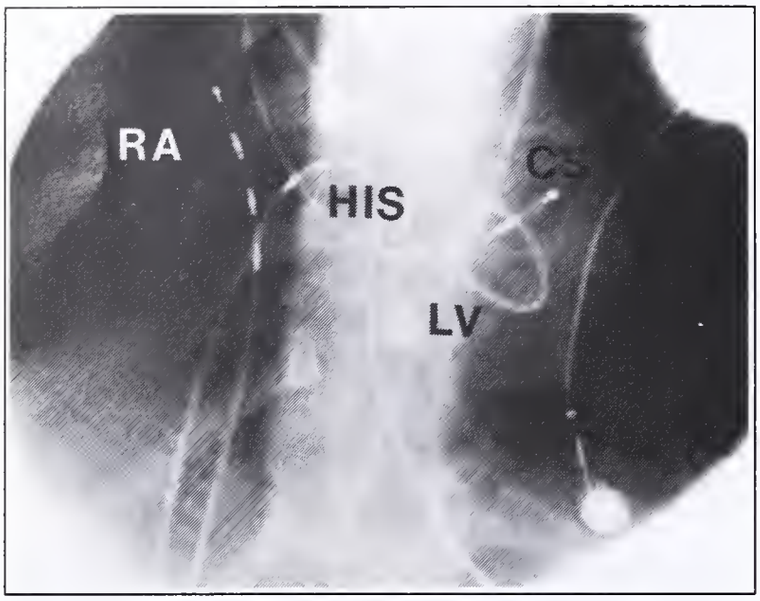


Figure 1B. Electrode catheter positions during EP testing and RF catheter ablation in Case 2. CS = catheter in coronary sinus. HIS = catheter in His position. RA = catheter in right atrium. LV = catheter in left ventricle.

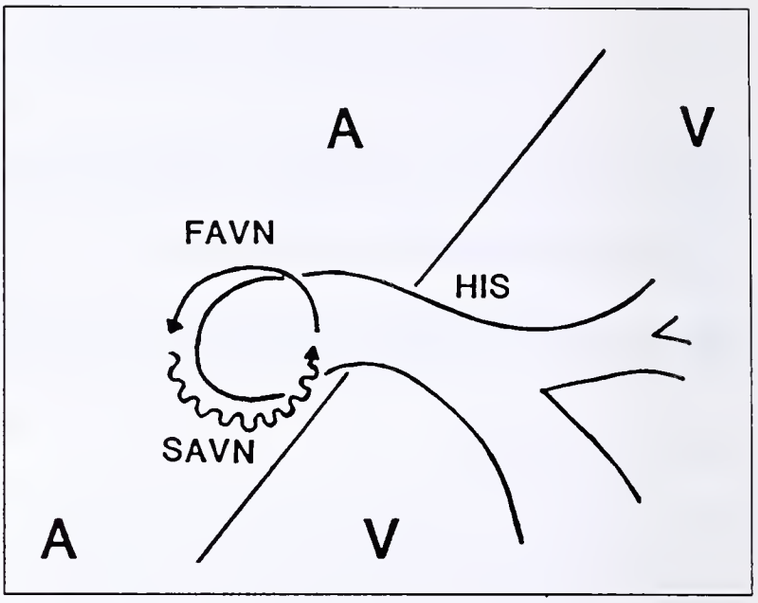


Figure 2A. Mechanism of atrioventricular (AV) nodal reentrant tachycardia, A = atrium, V = ventricle, FAVN = fast AV nodal pathway, SAVN = slow AV nodal pathway.

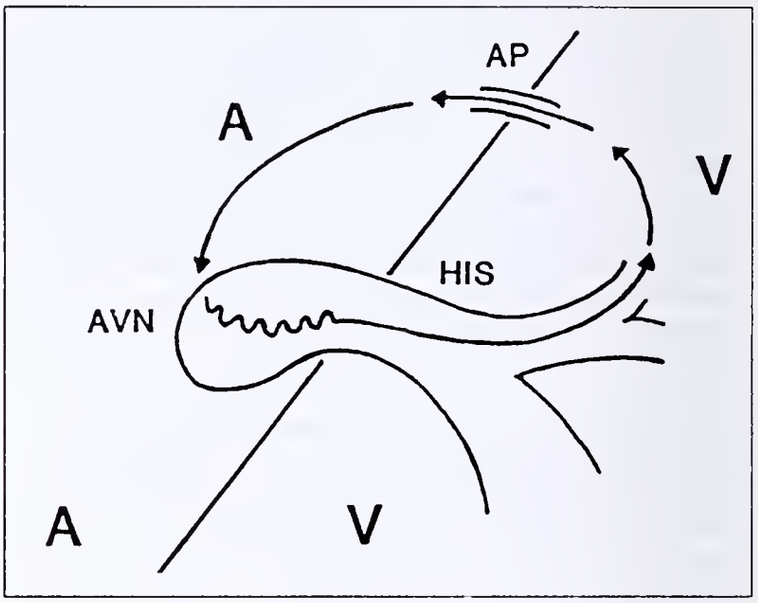


Figure 2B. Mechanism of orthodromic AV reciprocating tachycardia. A = atrium, AP = accessory pathway, AVN = AV node, V = ventricle.

Case 2 — A 30-year-old housewife had had rapid palpitations since age 22. The average duration of her palpitations was 30 minutes. 12-lead EKG demonstrated Wolff-Parkinson-White (WPW) syndrome with suggestion of a posteroseptal AV accessory pathway (negative delta waves V1, III, aVF, positive delta waves V2-V6, I and aVL). Baseline EP study localized the accessory pathway at the ostium of the coronary sinus. The accessory pathway effective refractory period was 280 milliseconds (shortening to 240 milliseconds post isoproterenol). Classic AV reciprocating tachycardia (down AV node, up accessory pathway) was inducible, with rate of 200 per minute. Repeat testing on oral moricizine demonstrated complete blockage of the accessory pathway with no tachycardia inducible. However, the patient developed mild neurological side effects on the agent. For personal reasons she wanted to be drug free.

She underwent ablation of the accessory pathway. RF energy was applied at 60 volts for up to 30 seconds through the same catheter as described in the previous case. Initial application of the energy in the right atrium above the ostium of the coronary sinus was unsuccessful, resulting only in transient conduction loss through the accessory pathway.

Subsequently, the left ventricular approach was used. The catheter was prolapsed across the aortic valve and the tip was placed under the mitral valve leaflet on the mitral annulus, close to the posterior edge of the septum (Figure 1B). Application of RF energy here readily resulted in persistent loss of preexcitation. Again, post procedure, there was no evidence of myocardial damage by EKG, cardiac enzymes and echocardiogram. The patient was discharged 2 days post-procedure. There was no tachycardia recurrence on followup.

Case 3 to 6 (See Table 1) — These cases involved 3 AV nodal modifications and one left lateral accessory pathway ablation, all successful.

Discussion

Mechanism

Cases 1 and 2 typify the majority of patients with problematic supraventricular tachycardias. In both patients, the tachycardia mechanism is re-entry or circus movement. During AV nodal re-entrant tachycardia, the circuit is inside or around the AV node. It involves antegrade conduction down a slow pathway and retrograde conduction up a fast pathway, both appearing to be anatomically distinct entities, with the fast pathway having a more superior (anterior) location around the node (Figure 2A). In orthodromic AV reciprocating tachycardia with WPW syndrome, the circuit entails antegrade conduction down the normal AV conduction system, across the

intervening ventricular myocardium, retrograde conduction up the accessory pathway, and across the intervening atrium (Figure 2B). The purpose of drugs or ablation therapy (surgical, DC current, RF current) is to interrupt the re-entrant circuit pharmacologically or physically.

Technique

The diagnostic portion of the procedure first requires intracardiac placement of 3 quadripolar electrode catheters, introduced through right or left femoral vein under local anesthesia and positioned in the right ventricular apex, the His position (across the tricuspid valve) and high in the right atrium. Another quadripolar electrode catheter is inserted into the coronary sinus (large vein running in the AV sulcus posteriorly on the left), usually introduced via the right internal jugular vein. With these catheter positions intracardiac mapping is possible, from the right, left and septal atrium; stimulation is possible from both atria and the right ventricle. With programmed electrical stimulation, the tachycardia mechanism is defined and the location of any accessory pathway is precisely determined if present.

Once the mechanism has been defined, RF catheter ablation or modification can be performed. RF current is a form of electrical energy with frequency range of 150 kHz to 1.0 MHz (by comparison, audible sound is 20 to 20,000 Hz, ultrasound 1.0 MHz to 10MHz, microwave 1,000 MHz to 3,000 MHz). In a low-power, bipolar mode with a continuous unmodulated sinusoid waveform, the energy can be harnassed to cause well-demarcated coagulation necrosis of myocardial tissue without sparking, gas bubble formation or cellular destruction of blood elements (common problems with the fulguration form of catheter ablation, which uses a monophasic damped sinusoid "direct" current at much higher voltage). For our purposes, the RF current is generated by an electrosurgical unit (model RFG-3C, Radionics, Burlington, Mass.) at a frequency of 350 kHz and given via a 7 French quadripolar catheter with a movable curve (Mansfield-Webster, Watertown, Mass.) The current is delivered between the large tip electrode on the catheter and an indifferent patch electrode on the patient's chest, usually at 40-60 volts. Because of the very high frequency, there is no neuromuscular stimulation and general anesthesia is not required.

For AV nodal re-entrant tachycardia, the key to success is modification or elimination of the fast or slow AV nodal pathway with preservation of overall AV conduction. Development of high grade or complete AV block is considered a complication.

There are 2 variations in the technique. In the "anterior" approach, the fast AV nodal pathway is ablated. The specialized catheter is first positioned across the tricuspid valve where a good His potential can be obtained. The catheter is then progressively pulled back until an atrial ventricular electrogram ratio of more than 1.0 is reached, and the His potential is barely recordable (Figure 1A). RF energy is then applied.

The endpoint of success is an increase of at least 50% in the AH interval, elimination or marked slowing of ventriculoatrial conduction and inability to induce tachycardia afterwards. The prolongation of AH interval (AV nodal conduction time) occurs because, with ablation of the fast AV nodal pathway, antegrade conduction through the node occurrs only through the slow pathway. This was the protocol used in Cases 1, 4 and 5.

The slow AV nodal pathway, which has a more inferior (posterior) orientation, can be eliminated by using the "posterior" approach. In this technique, RF energy is applied to the

Table 1 — PATIENT PROFILE

Case	Age	Sex	Tachycardia Mechanism	Rate (beats/min)	Symptoms	Drugs Used	Heart Disease	RF Outcome	Complications	Recurrence
1	64	M	AVN	170	p,w	D,P,Pn	0	+,F	0	0
2	30	F	WPW	200	p	M'	0	+	0	0
3	58	F	AVN	175	c,p	D,Pn,V	0	+,S	DVT	0
4	37	F	AVN	250	d,l,p	D,P,V	0	+F	0	0
5	50	F	AVN	230	p,w	V	0	+,F	0	0
6	24	M	WPW	200	l,p,s	D,F,Pn Q,V	CM,M"	+	0	0

F = female M = male
AVN = atrioventricular (AV) nodal reentrant tachycardia.
WPW = Wolff-Parkinson-White syndrome with orthodromic AV reciprocating tachycardia.
c = chest pain, d = dyspnea, 1 = lightheadedness, p = palpitations, s = syncope, w = weakness
D = dispyramide, M' = moricizine, P = propanolol, Pn = procainamide, Q = quinidine, V = verapamil
+ = successful, - = unsuccessful, F = fast AV nodal pathway eliminated, S = slow AV nodal pathway eliminated
CM = cardiomyopathy, M" = malposition, DVT = deep vein thrombophlebitis

(Continued) ➤

right atrium between the His bundle location and the ostium of the coronary sinus. Since the fast pathway is not affected, the AH and PR intervals will not be changed. The endpoint of success is elimination of the dual AV nodal curves during programmed extrastimulus stimulation, as well as the inability to induce tachycardia. We have used this protocol in Case 3 and have found equal success with it.

For ablation of AV accessory pathways in the WPW syndrome, the location of the pathway is first defined by mapping of the atrial depolarization sequence during ventricular pacing and orthodromic tachycardia. Measurement of accessory pathway potential as a means of localization is helpful but too time consuming. We have found instead the shortest AV interval highly useful. For left free-wall pathways, the specialized catheter is first introduced through the femoral artery and advanced retrogradely through the aortic valve into the left ventricle. The large tip electrode is placed beneath the mitral leaflet and against the mitral annulus (the annulus is well outlined by the catheter in the coronary sinus). RF energy is applied at the location previously mapped, where a very short AV interval can be measured.

For right free wall and anteroseptal accessory pathways, right internal jugular venous access is generally used. The specialized catheter is advanced through the right atrium into the right ventricle and then curled up below the tricuspid valve with the tip electrode aganist the tricuspid annulus. The tricuspid annulus can be outlined by a wire placed in the right coronary artery.

There are 2 approaches to posteroseptal pathways, both described previously in Case 2. In our case, the left ventricular approach (Figure 1B) was successful, probably attesting to a very oblique orientation of the accessory pathway.

The endpoint of success is complete elimination of both antegrade and retrograde conduction through the accessory pathway with no tachycardia inducible afterwards. In our patients, there was complete loss of preexcitation with elimination of delta waves on the surface EKG, a change in the retrograde AV conduction sequence (with the earliest site of retrograde depolarization being the septal atrium, suggesting conduction only through the normal AV conduction system and not eccentrically through the accessory pathway), as well as non-inducibility of the tachycardia.

There is currently almost no experience with atrial flutter. However, since the majority of flutters involve a macro-reentry circuit in the right atrium with a zone of slow conduction in the low right atrium, this arrhythmia is potentially also amenable to RF catheter cure.

Efficacy and Complications

The reported success rate in the literature has been 92 to 98%. In our experience with 6 patients so far, the technique has been uniformly successful.

For AV nodal modification and for ablation of posteroseptal AV accessory pathways, there is a reported low incidence of high grade AV block (about 1%). In the 2 largest series reported so far[5, 6], there have been less than 1% incidence of pericarditis, cardiac tamponade and myocardial infarction (one case each). The case of myocardial infarction reported occurred by inadvertent introduction of the catheter into the circumflex artery rather than the aortic valve (a complication which can be avoided by an experienced catheterizer). In the one case of pericardial tamponade and the other case of pericarditis, the RF current was applied in a small branch of the coronary sinus. It appears that avoidance of delivery of RF energy inside the coronary sinus or its branches may eliminate these complications altogether.

In our experience, deep vein thrombophlebitis in the right leg from catheter insertion occurred in Case 3. This is a complication which may be seen infrequently during routine electrophysiologic studies (generally related to multiple catheter insertion into the same vein and prolonged duration of the procedure) and is not unique to the RF technique. It has now become our practice to give patients 3000 units of heparin intravenously at the beginning of the procedure and 1000 units every additional hour.

Theoretically, clinically significant thromboembolic events may occur whenever a catheter is placed in the arterial circulation. With accumulation of a larger experience worldwide, a low incidence of strokes (so far unreported) may come to light as a result of ablation of left-sided accessory pathways which requires arterial catheterization. This incidence may be minimized or eliminated by heparinization as well as by intermittent inspection of the ablation catheter tip for coagulum (chared). A coagulum is generally suspected when there is a rapid rise in measured impedance during the application of RF energy.

A comparison

Even though similar efficacy is achievable through open-chest surgical procedures, the 5 to 10% incidence of morbidity (bleeding, infection, stroke, atelectasis, sternal dehiscence, Dressler's syndrome, etc, not considering chest pain which occurs in all) and prolonged recovery time will make surgery a much less attractive option.

Empiric antiarrhythmic therapy (unguided by EP testing) is, of course, noninvasive. However, even if an effective agent could be found by trial-and-error, the high frequency of side effects (20 to 50)% for most drugs) as well as the specter of life-threatening proarrhythmia would make this alternative also quite undesirable. Furthermore, the majority of the patients with supraventricular tachycardias tend to be young (for women, in the reproductive age). The prospect of facing 40 or 50 years of taking medications (up to 3 times a day) is unacceptable to many, even back in the dark ages when no other treatment was available.

Finally, what about expenses? The total charge for surgery is about $50,000, for RF ablation about $7,500. At first glance, the cost of generic verapamil (80 mg 3 times a day) at $24.45 a month appears to be a real bargain. But taking it over a period of 40 years will need $34,713 (assuming 5% a year inflation). Even if the patient has the foresight to stockpile 40 years' worth with one visit, it will still require $11,736 (and storage space for 43,810 pills). Understandably, this does not include the cost of the occasional emergency room visit for breakthroughs (from noncompliance or otherwise). Furthermore, medical therapy is probably inappropriate for patients with WPW syndrome and "fast" accessory pathways, who are at risk for sudden death[10, 11].

Conclusion

Radio-frequency catheter ablation is a highly successful, safe and relatively inexpensive technique which will revolutionalize the treatment of re-entrant supraventricular tachyarrhythmias. It is quite probable that in the near future any patient with sustained supraventricular tachycardia may be admitted to hospital, undergo the diagnostic and RF catheter procedure the same day, and be discharged within 1 to 2 days without having to go through the rather unpleasant experience of diarrhea (quinidine), joint pains (procainamide), dry mouth (disopyramide), constipation (verapamil), or disturbing phone calls from a relative warning about sudden death (flecainide).

I can recall in my previous article on fulguration the comparison of the relationship between catheter ablation and surgery for arrhythmia (known as arrhythmia surgery) to that between percutaneous transluminal coronary angioplasty and coronary artery bypass surgery. This is actually quite invalid. As everyone knows, there is no cure for coronary artery disease.

ACKNOWLEDGEMENT

The author wishes to acknowledge the assistance and collaboration of D Corpuz, R Ashmore MD, R White, MDR Chen, R Subia, K Mayeda, MA Raymond and the Straub Cardiac Catherization Laboratory (J Brennan, K Bridges, L Chun, B Hayhurst, M Montgomery).

REFERENCES

1. Cox JL, Fergusson TB. Cardiac arrhythmia surgery. In Wells SA ed. Current problems in surgery. Chicago Yearbook Medical Publishers, 1989; 26:195-278.
2. Cox JL, Holman WL, Cain ME. Cryosurgical treatment of atrioventricular node re-entrant tachycardia. *Circulation* 1987; 76:1329-36.
3. Scheinman MM, Morady F, Hess DS, Gonzalez R. Catheter induced ablation of the atrioventricular junction to control refractory supraventricular arrhythmias. *JAMA* 1982; 248:851-5.
4. Shen EN. Closed-chest electrical ablation (fulguration) of atrioventricular accessory pathway in the Wolff-Parkinson-White syndome: Report of the First Case in Hawaii. *Hawaii Medical Journal* 1990; 49:92-104.
5. Warin JF, Haissaguerre M, D'Ivernois C, Le Metayer P, Montserrat P. Catheter ablation of accessory pathways: Technique and results in 248 patients. *Pace* 1990; 13:1609-14.
6. Huang SK, Bharati S, Graham AR, Lev M, Marcus FI, Odell RC. Closed-chest catheter dessication of the atrioventricular junction using radio-frequency energy — A new method of catheter ablation. *J Am Coll Cardiol* 1987; 349-358.
7. Huang SK. Radio-frequency catheter ablation of cardiac arrhythmias: Appraisal of an evolving therapeutic modality. *Am Heart J* 1989; 118:1317-23.
8. Jackman WM, Wang X, Friday KJ, Roman CA, Moultan KP, Beckman KJ, McClelland JH, Twidale N, Hazlitt HA, Prior MI, Margolis PD, Calame JD, Overholt ED, Lazarra, R. Catheter ablation of accessory atrioventricular pathways (Wolff-Parkinson-White syndrome) by radio-frequency current. *N Engl J Med* 1991; 324:1605-11.
9. Calkins H, Souza J, EL-Atassi R, Rosenheck S, De Buitleir M, Kou WH, Kadish AH, Langberg JJ, Morady F. Diagnosis and cure of the Wolff-Parkinson-White syndrome or paroxysmal supraventricular tachycardias during a single electrophysiologic test. *N Engl J Med* 1991; 324:1612-18.
10. Klein GJ, Bashore TM, Sellers TD, Pritchett EL, Smith WM, Gallagher JJ. Ventricular fibrillation in the Wolff-Parkinson-White Syndrome. *N Engl J Med* 1979; 301:1080-85.
11. Shen EN: Topics in acute care - Wolff-Parkinson-White Syndrome. *Hospital Medicine* 1991; 27:61-78.

■



CREATE A MEDICAL BREAKTHROUGH.

Become an Air Force physician and find the career breakthrough you've been looking for.

- No office overhead
- Dedicated, professional staff
- Quality lifestyle and benefits
- 30 days vacation with pay per year

Today's Air Force provides medical breakthroughs. Find out how to qualify as a physician or physician specialist. Call

USAF HEALTH PROFESSIONS
TOLL FREE
1-800-423-USAF

AIR FORCE

The right to die as an ethical dilemma for new physicians in Hawaii

John F McDermott Jr MD*
Jane A Waldron PhD**
Danilo E Ponce MD†

In the Cruzan case, the U.S. Supreme Court acknowledged the patient's right to refuse treatment but limited the decision-making involvement of the family when the patient's wishes are unknown. A study of 118 graduating physicians at the John A. Burns School of Medicine revealed their most significant clinical experience involving an ethical dilemma during their 3rd and 4th years was their involvement with families in the decision to discontinue treatment for terminal patients. These findings underscore the need for a focus on this issue in the curriculum.

Introduction

Advances in medicine have outdistanced the development of guidelines for dealing with them and have produced a new set of ethical dilemmas for physicians. These dilemmas have been discussed in journals and medical school curricula, but empirical data about them is just beginning to be found in the scientific literature[1,2,3].

On June 15, 1990, in the case of Nancy Cruzan[4,5], the U.S. Supreme Court ruled on the first right to die case to come before it. In its ruling, the court assigned constitutional status to the right to die, ie it held that a competent patient has a constitutional "liberty" to refuse treatment, including tube-feeding. However, in the case of an incompetent patient, it required "clear and convincing evidence" of that wish to discontinue, limiting family involvement to cases in which the patient had specifically designated family members as surrogates. In the Cruzan case, the Court affirmed the right to die as a constitutional right and the role of the family as an extension of the patient's decision-making process. The Cruzan case, which was considered during the 1980s and was decided in 1990, confirmed the need for society to focus on the right to die as an important contemporary issue needing explicit guidelines. Our study, however, considered this issue prior to the Supreme Court's ultimate decision. The issue was chosen by our survey cohort as its most serious ethical dilemma faced during the clinical years of medical school.

* Professor & Chairman of Psychiatry
John A Burns School of Medicine
1319 Punahou Street
Honolulu, Hawaii 96826
** Professor of Psychiatry
John A Burns School of Medicine
† Professor of Psychiatry
John A Burns School of Medicine

Received for publication on April 23, 1991.

Method

As part of a required seminar in Medical Ethics, 2 weeks prior to graduation all 118 senior students in the classes of 1986 and 1987 anonymously submitted a description of the single most important ethical dilemma with which they had been involved during their medical education. The survey instructions read: "All people who think and feel have had experience with being in a situation where they had to make a decision, but weren't sure what was the right thing to do. Think of a time during your clinical experience when you faced an ethical dilemma, ie when you had to decide between two alternatives both of which were important. (A) Describe such a situation and clearly articulate the conflict for you in that situation. (B) In thinking about what to do, what did you consider and why did you consider it? (C) What did you decide to do? What happened? (D) Do you think it was the right thing to do? Why? Why not? (E) When you think back over the conflict, do you think you learned anything from it?" The responses were analyzed and grouped by major dilemmas.

Results

Of the 118 ethical dilemmas reported (see Table 1), the largest number (43) dealt with the patient's right to die when the prognosis was hopeless. In 7 of these cases, the decision to discontinue treatment was made by the patient and the attending physician alone. In the majority (36 cases), however, the families were involved in the decisions. In view of the Cruzan decision, these 36 cases will be considered in some detail (see Table 2).

Discussion

In half of the cases in which the patient had a Living Will or had clearly expressed the wish to be allowed to die and to discontinue further treatment and/or life support, the family supported the patient's wish, while in the other half they opposed it or were split. In these instances, the physician, assisted by the student, mediated in order to reach resolution in favor of the patient's own wish to be allowed to die.

Example: The condition of a 54-year-old man with a mas-

TABLE 1
Medical Student Dilemmas (N = 118)

Right to Die	43
Informed Consent	24
Confidentiality	18
D_x and R_x Decisions	11
Personal Values	11
Laboratory Tests	7
Other (public health issues)	5
	118

sive myocardial infarction was deteriorating. The attending physician wished to change the code status and stop heroic measures. The wife and son were in agreement with the patient's expressed wish to die with dignity. However, the patient's daughter disagreed and wanted treatment continued. The physician worked out a compromise in which heroic measures were to be continued for 24 hours and then discontinued.

In the majority of cases the comatose patient had no Living Will and his/her wish was not known. In most of these cases, the family's decision was to allow the patient to die peacefully, in several instances after significant physician involvement in educating the family about prognosis, options and cost were carried out. In other instances, the family requested that "everything possible be done" and that the patient be kept alive, even though terminal. This decision was respected. In a similar number of cases, however, the family requested that treatment be discontinued *against* the attending physician's judgment.

In summary, 2 major findings stand out. First of all, student physicians are frequently involved in cases of terminally ill, incompetent patients who do not have a Living Will and the dilemma of how far to go in sustaining life when the prognosis is hopeless has to be addressed. Second, in a significant number of cases, the family's wishes present the student physician with an ethical conflict. Indeed, it appears that the most common ethical dilemma for student physicians in the clinical years is the difference between the wishes of the patient and his or her family whether to discontinue treatment. Thus, there appears to be a spectrum of decision making with varying degrees of physician involvement along the line.

Conclusion

It is estimated that 7 out of 10 Americans will some day directly confront questions of life-sustaining medical care for themselves or for relatives. Society supports the right of the individual patient to discontinue treatment. However, when that wish is ambiguous, family involvement complicates the doctor-patient relationship and requires active assessment and compassionate management by the physician. Most often a resolution of conflict between patient and family occurs through education and counseling by the physician regarding prognosis, outcome, pain and suffering. Thus, the physician must become a diagnostician of the family's own needs and interests and integrate them into the care of the patient. The new Problem-Based Curriculum at the University of Hawaii's John A Burns School of Medicine emphasizes a special focus on training physicians to be involved with patients and their families when it comes to a question of dying.

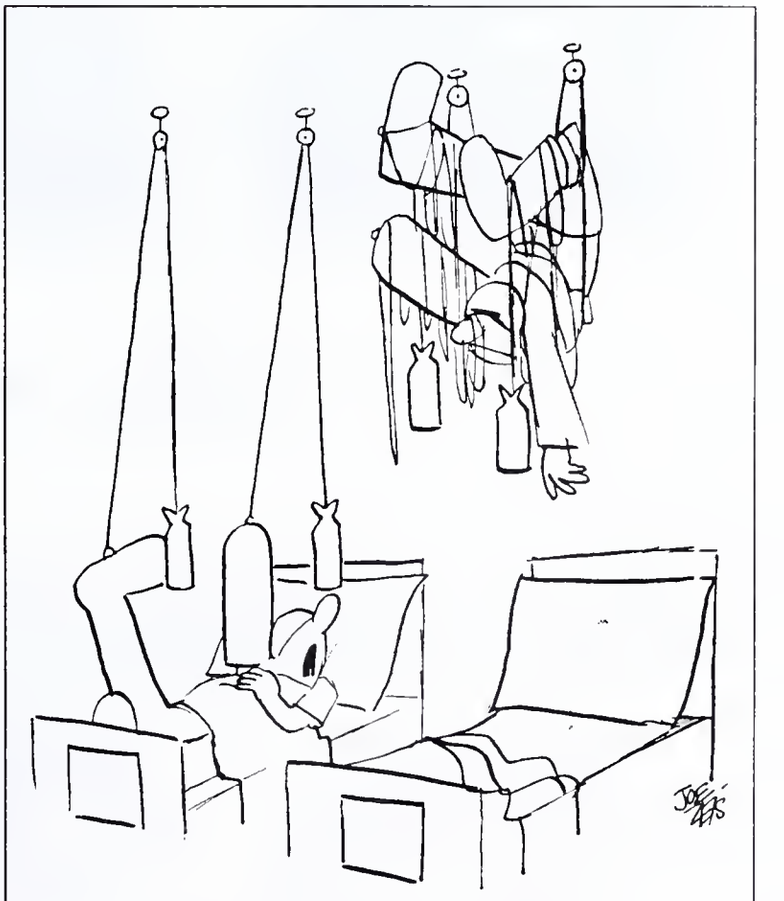
TABLE 2
Right to Die (N = 43)

Doctor-patient decision	7
Doctor-patient-family decision	36
Family agrees with patient's wishes	9
Family disagrees with patient's wishes	10
Patient's wish unknown	17

REFERENCES

1. Fried C: Terminating life support: out of the closet! *N Eng J Med* 295, 1976.
2. President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research: *Deciding to Forego Life Sustaining Treatment*. Washington, D.C.: U.S. Govemment Printing Office, 1983.
3. Suber D, Tabor W: Withholding the life sustaining treatment from the terminally ill, incompetent patient: who decides? *JAMA* 248:2250-2251, 1982.
4. Cruzan vs. Missouri U.S. Supreme Court, June 1990
5. Lo B, Rouse F, Dornbrand L: Family decision making on trial: who decides for incompetent patients? *N Eng J Med*, 322:1228-1232, 1990.

■



"GESUNDHEIT."

Sink your teeth into some



killer desserts.

They taste so good, but with their high fat and cholesterol content, they're killers.
The American Heart Association has some easy to follow guidelines on eating healthier to reduce your risk of heart attack, which our volunteers will give you when they come to your door. So give what's fair in return.
You'll live longer, knowing the killer desserts you can eat.
For more information, contact your nearest American Heart Association office.

American Heart Association
Hawaii Affiliate

Maka O Ka Kauka

Russell T. Stodd MD

It is much easier to recognize error than to find truth.

Here and now, the incidence of infectious endophthalmitis in sutureless surgery versus sutured incisions is unknown. However, a recent *Archives of Ophthalmology* article reports 3 cases of post-op infectious endophthalmitis following uncomplicated sutureless surgery. Previously, data on post-surgical endophthalmitis showed that 65% were associated with wound gape. The question proposed is that sutureless surgery may not be sufficiently "water-tight" to avoid increased risk for postoperative infectious endophthalmitis. Caution would seem to dictate that until definitive data to support the safety of sutureless surgery can be obtained and analyzed, maintenance of wound integrity with secure suture closure is a prudent step.

If the world were a logical place, men would ride sidesaddle.

A recent Gallup Poll revealed that almost 90% of Americans favor mandatory HIV testing of all health-care professionals. The potential cost of testing the nation's 7-million-plus health-care workers on a quarterly basis at $35 a test rings up to an estimated $1 billion. Testing the same group on an annual basis would amount to a mere $250 million. The absurdity of this discussion is that such testing would do nothing to protect the public from a threat that does not exist. For this bit of gross misunderstanding we can thank the media. The overwhelming desire, especially of the television industry, to focus on the dramatic, has resulted in interminable attention to the pathetic Florida dentist who managed to infect 5 patients (in a manner never determined) before his death. Never mind that no other physician or dentist has ever transmitted HIV to a patient.

(Continued) ➤

We Don't Want Your Pension Money.

We just want to account for it!

Believe it or not, we don't want your pension money, we just want to account for it. As third party administrator of Pension and Profit Sharing Plans, HICKS has provided complete, accurate plan consulting and record keeping for businesses in Hawaii since 1976.

Clients of HICKS enjoy complete investment discretion of trust assets while never having to worry about compliance issues or administration duties. With HICKS, all required Trust Accounting, Participant Allocations and Government Reporting are handled.

No asset charges or transaction fees. Just independent, third party consulting and administration.

Ask your attorney, accountant, or financial planner about the benefits of doing business with HICKS. Or give us a call – our consultants will help identify your needs and develop a program that's right for you.

- Self Trusteed Plans
- 401 (k) Profit Sharing
- Profit Sharing
- Money Purchase Pension
- Target Benefit Pension
- Defined Benefit Pension
- Plan Design and Amendment
- Actuarial Services
- 125/ Cafeteria Plans

HICKS. HICKS PENSION SERVICES
ACTUARIES AND QUALIFIED PLAN SPECIALISTS

615 Piikoi Street Suite 2020 • Honolulu, HI 96814 • (808) 523-0144 • Fax: 533-0082

THERE IS SOMETHING YOU CAN DO ABOUT AIDS



Life Foundation
The A.I.D.S. Foundation of Hawaii
924-AIDS

Aloha United Way
It brings out the best in all of us.

Enclosed is my tax deductible donation to help The AIDS Foundation of Hawaii

Name _____

Address _____

_____ Donation $_____

MAIL TO: LIFE FOUNDATION
P.O. Box 88980, Honolulu, HI 96830-8980

MCAT
Medical College Admission Test
DAT
Dental Admission Test
Test Your Best
Classes Forming Now.

If you or someone you know is preparing for any of these exams, call us immediately and be sure to..."Test Your Best".

STANLEY H. KAPLAN
Take Kaplan Or Take Your Chances

2875 South King Street • Hon. HI 96826

946-5600

If you do business in Hawaii ...

and find it valuable to know who's suing who or who's getting hit with tax liens, going bankrupt, getting incorporated, selling property, being dissolved, or getting promoted

... we have news for you

PBN PACIFIC BUSINESS NEWS

For information call 521-0021.

The price one pays for pursuing any profession is an intimate knowledge of its ugly side.

Dr Jack Dodick, President of American Society of Cataract and Refractive Surgery is hard at work trying to promote advertising techniques that do not deceive, delude or mislead. Good luck! As has been said in a number of ways, all advertising is intended to sway the consumer. The Madison Avenue devices are circumvention, artifice, wile, suggestion and illusion, while avoiding outright fraud and chicanery. Dr Dodick would have claims accompanied by disclosures of potential complications and adverse reactions. One can almost hear the hucksters, "Oh puhlease, Jack."

A little inaccuracy saves a world of explanation.

Although Medicare payment reductions are smaller than previously estimated for anesthesia and thoracic surgery, they still remain the biggest losers, in the same stratum with ophthalmic surgery. These groups can expect about a 27% reduction in payments per service by 1996. Previous estimates in the proposal placed the reductions at 35% for anesthesiologists and 31% for thoracic surgeons. Can ophthalmologists be far behind? Revised estimates from HCFA indicate the new schedule would mean a 27% cut in Medicare spending for ophthalmology, but a 24% *increase* per optometric service and a 32% *increase* for podiatry!

The function of socialism is to raise suffering to a higher level.

Some of the smoke is clearing away in the final HCFA rules in the fee schedule reforms due to emerge in 1992. Some of the key changes:

• The preoperative period included in the *global surgical fee* for major surgery has been decreased from the proposed 30 days to one day.

• Some 1,000 of the 4,500 relative values developed by Harvard University were revised, but RVUs across all services increased by less than 1%.

• For the time being, HCFA will maintain the current method of basing anesthesia payments on actual time units rather than"average time" as HCFA proposed. However, Dr Wilensky said that a final decision is still pending.

There they go! I must hasten to follow for I am their leader.

Fortunately, we have the guidance of our Legendary Ophthalmic Gurus in Charge (LOGIC) to assist us through these difficult times. And, what do these prescient AAO board directors say?

Manus Kraff: "Mentally we've all got to expect reduced income."

Allen Jensen: "We're going to have to become wiser and more efficient in how we practice."

B Thomas Hutchinson: "Inefficient practitioners will suffer."

William Offutt IV: "It's going to become increasingly difficult for ophthalmologists to keep their offices open."

Edward Isbey Jr: "Stay up to date on billing costs and consider joining other physicians to control costs."

David Durfee: "Shorten surgery time to allow more office work. Reorganize ancillary help to allow physicians to see more patients [behavioral offset?/RTS]. Bolster the dispensing service."

H Dunbar Hoskins: "Start planning now for the fee changes."

Addenda—

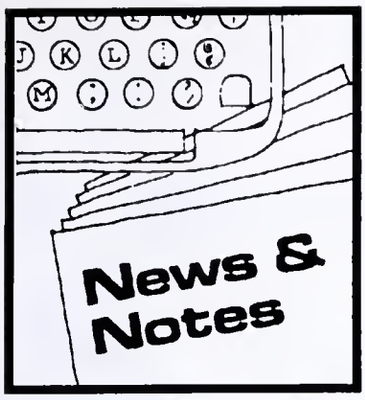
— Tobacco and tobacco products are the number one U.S. agricultural export.

— Cost of Operation Desert Storm: $1 billion per day.

— How many teamsters does it take to change a light bulb? 10! You got a problem with that?

Aloha, and keep the faith.

rts



Henry N. Yokoyama MD

Life in These Parts

Waianae Diet

Terry Shintani, director of preventable health services, Waianae Coast Comprehensive Health Center, has pioneered the Waianae Diet (with Claire Hughes, acting chief of nutrition, state DoH). According to the diet, the patient eats all the poi, breadfruit, sweet potatoes and fruits he can eat along with small amounts of chicken and fish. Two years ago, 20 Hawaiians weighing an average of 245 pounds were recruited from the Waianae community for a 21-day diet program. The participants lost 17 pounds each, reduced their cholesterol levels by 14% and diabetics showed marked improvement. (One diabetic on 60 units of insulin no longer needed insulin.) Terry says, "A diet that includes taro will tend to reverse high cholesterol levels ... Taro was the hub of ancient Hawaiian culture and is one of nature's perfect foods. Restoring the culture of a community restores its health."

Caught Fish, Lost Boat

Maui physicians Stephen Dubin and Patrick Hamilton, and Brenda Aulenback, went fishing on a 21-foot fishing boat on a November Saturday morning. They caught 2 mahimahi and then noticed the boat was filling with water. They were then swamped and flipped over by large swells. Patrick started paddling a leaking inflatable ski rocket toward Kahului and was picked up 20 hours later. Stephen and Brenda clung to the overturned boat for 33 hours before being rescued. Stephen plans to get a bigger boat, designed for Hawaiian waters with more emergency gear and a beeper to signal search teams. Patrick, a urologist with the Maui Medical Group, commented, "Funny thing is, we caught the fish, but the boat got away..."

Obituaries in Brief

Abraham Ng Kamsat, 86, died November 20.

Robert Ballard, 70, of Honolulu died November 25.

Ira Dwight Hirschy, 86, died December 4.

Raymond Hiroshige, 73, of Honolulu, died December 20.

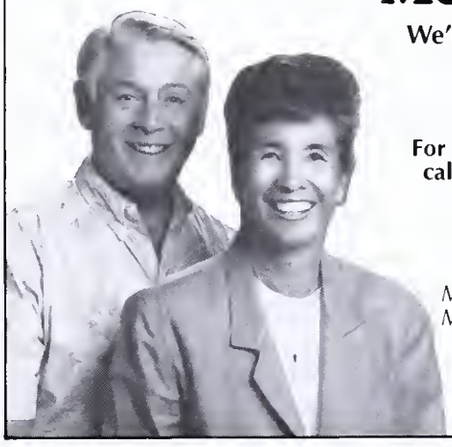
(Continued) ➤

WE KNOW THE ISLANDS...
AND WE KNOW ISLANDERS...

You've come to expect our kid-glove service—and we're proud of servicing Hawaii for over twenty-two years.

- Professionally Planned Office Moves
- Inter-island Household Moves
- Mainland and International
- Storage—Personal and Business

Large or small, we're your best friends when it comes to moving and storage.



Medford and Masu Dyer

M. dyer & sons, inc.
MOVING STORAGE
We're Right Here. Your Kamaaina Movers.
456-4200
For moves from the continental U.S. to Hawaii call Dyer International, Inc. 1 800 932-9955

PUC 137C ICC MC133909

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

CLASSIFIED NOTICES

To place a Classified Notice, MEMBERS, please call Association Office at 536-7702. NON-MEMBERS, please call Leilani at 521-0021. 4 line min., approx. 5 words per line. Payment must accompany order.

EMPLOYMENT OPPORTUNITY

POSITIONS AVAILABLE

Physician Placement Hawaii has openings for physicians & other medical professionals all across the U.S. Mainland as well as here in Hawaii. We also have candidates interested in a Hawaii position. Call Earl Pajari at 395-7099.

Looking for confident FP or GP that loves Kihei! Present physician has many years of experience and is willing to share them with an interested candidate willing to learn with the possibility of becoming part of the practice. The office is approximately 1,500 sq. ft. and has newly installed computer equipment with a complete clinic that includes one x-ray tech, 2 medical assistants and a business manager. Office hours are 8 a.m. to 6 p.m. Monday through Friday, 8 a.m. to 5 p.m. Saturday, 9 a.m. to 1 p.m. Sunday and holidays. Call Susie at 879-7447 or 879-1440.

OB/GYN needed for a multi-specialty clinic. Contact: Central Medical Clinic, George Shojinaga, 321 N. Kuakini Street, Suite 201, Honolulu, HI 96817, (808) 523-8611.

MAUI — Wanted: Neurosurgeon, psychiatrist or other compatible specialist to share 1,600 sq. ft. office and staff with an established neurologist. Call 877-5811.

INTERNIST AND PEDIATRICIAN needed for large multi-specialty clinic on Waianae Coast. Full/part time available now. Hours flexible. Salary plus full benefits. Contact Pua Kalawa, Waianae Coast Comprehensive Health Center, 86-260 Farrington Highway, Waianae, HI 96792, (808) 696-7081.

POSITION YOURSELF FOR GROWTH

If you're interested in building a healthy practice in the fastest growing area of Oahu, Pali Momi Medical Center has practice opportunities for Internal Medicine and Family Practice physicians. Office space options, incentive packages and practice development assistance are available. So, before you make a decision about your practice, consider Pali Momi Medical Center. Contact the Physician Services Department at 486-1122.

OFFICES

ST. FRANCIS MEDICAL CTR.

Fully furnished office space with 3 exam rooms avail. in the Medical Office Bldg. 1st floor across from pharmacy. Turnkey operation, ready to go. Contact: Office Manager 536-2261.

AINA HAINA PROFESSIONAL BUILDING

1,064.5 sq. ft. office with spacious waiting room, central reception area and 3 exam rooms. Includes 2 parking stalls with ample patient parking in the shopping center area. Call Carolyn Darrow, 373-9844.

FOR SALE

Exam table, heavy duty, oak finish with brown naugahyde head lifts up, stirrups and set-up tray. Best offer — must see. Call Lois 538-7044.

Bennet X-ray, Konica processor. Six years old. Excellent for spine and extremity work — table does not tilt. Overhead mount. Offer. 942-3533.

DOWNTOWN BISHOP STREET — fully equipped Dermatology office for sale by arrangement. Call 528-1717.

Burroughs pegboard with half box of journal sheets (N233); almost new, $25. Burroughs posting tray, almost new $25. Call Cardiology Associates Inc., 521-8211.

REAL ESTATE

A+ VIEW! 3079 PACIFIC HTS. RD.

10148 sf Fee 3/2 old house + plans for new. A/S OK. $795,000 as appraised.

R. Smith (R) 524-8208

MANOA

Best street. 4 bd., 3 ba. Divorce forces sale. Gaylyn Li-Ma 530-1266 (pager) 946-0646

SERVICES

ATTENTION RADIOLOGISTS!!!

How do you spell relief?! Sheryl North, M.D.! Avail. for Locum Tenens Immed!! Call 310-839-0733 or write 5878 Bowcroft St., Los Angeles, CA 90016.

MEDICAL BILLING SERVICE

Incl. Insurance Claims Filing • Collections.
Low Rates. Call MEDCON 247-0591

LOCUM TENENS PROVIDED

Internal Medicine and Family Practice available. Please contact Acute Care Medical Services. 262-4181.

Let us help you set up your practice. Call Vonlee Cham - 536-7881.

This number could save your life

call

524-1234

Neighbor Islands
Call Collect

NEWS AND NOTES

(Continued from page ?)

Bumper Sticker

A pale yellow, rusting vintage 60s Toyota sedan with a warning bumper sticker: "This Car Explodes On Impact."

Appointed, Elected and Honored

"Dr Norm Goldstein is the winner of the Service to Hawaii's Youth Award presented by the Adult Friends for Youth. Goldstein, a dermatologist, was honored for helping young people by removing tattoos that were limiting their social and employment opportunities."

(From *Wood Craft* — By Ben Wood)

* * *

Honolulu Marathon founder Jack Scaff is one of 10 persons who have completed all 18 marathons. In 1973, only 151 people completed the first marathon ...

* * *

Wailuku pediatrician Marion Hanlon was awarded the Black Bear award as an outstanding alumnus of Sterling High School in Sterling Kansas. Marion was the valedictorian for the class of '39.

Professional Moves

NOVEMBER: Robert Cary, Lanai's only doctor, left to join a medical group in Longview, Texas. For the past 7 years, Robert was on call 24 hours a day, but was unable to get a commitment from Lanai Company about purchasing a house for his family or housing for another physician.

Hors de Combat

Self Referral: In December, the AMA took a stand against physician self referral. Reports indicate that 10% of U.S. physicians own interests in health-care facilities that have been linked to potential self-referral cases.

To Counsel or To Dispense: The Legislature had provided $170,000 to the school budget for a pilot program and the issue was whether campus clinics should offer birth control counseling or simply dispense condoms. The Board of Education task force decided in November that each school community should decide for itself.

Sportsmen

The results of the HCMS Annual Golf Tournament held at Kaneohe Marine Corps Air Station Klipper Club on October 30 were as follows:

Tied for 1st: Neal Shibuya 82-23=net 60; Danny Nakayama 86-26=net 60

3rd Place: Maud Chang (Mrs Clifford Chang) 83-18=net 65

4th Place: Robb Ohtani 89-24=net 65

5th Place: Ed Izawa 82-16=net 66

(Reported by Bill Dang)

■

"Ever Look At Your Community From My Perspective?"

—Jim Brady



It shouldn't be hard to go to a restaurant, a job or a theater. But for me and millions of other people with disabilities, these simple acts present daily obstacles. Sometimes we encounter so many barriers, it's like being exiled in our own communities.

The irony is that 43 million Americans with disabilities are eager — and able — to contribute to community life. And we have so much to offer. We have the skills, intelligence and creativity that most people do; we just happen to use a wheelchair or a guide dog or a hearing aid.

Help us open opportunities in your community. Get involved in my Calling on America campaign. It's easy. Anyone can join or start a local campaign.

Here's just a sample of some of the things you can do in your area:

- Make sure your businesses, churches, restaurants, theaters and motels are fully accessible
- Provide disability awareness training for local employees and supervisors
- Organize a job fair; work with employers to increase job opportunities for people with disabilities
- Increase enforcement of handicapped parking ordinances
- Work with elected officials to make sure polling places are fully accessible
- Work to ensure public transportation is fully accessible





Make your town an equal opportunity community. Give people with disabilities a chance, and we'll show you what we can do.

☐ **Yes**, Jim. I support your Calling on America campaign. I am willing to get involved in my community. Send me a free campaign guide.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

Mail to: Calling on America, National Organization on Disability
910 16th Street, NW, Washington, DC 20006.





With YesExpress,℠ You've Got Dibs On A Commitment Letter. In 20 Minutes.

You could have first dibs on the house you've been dreaming of. Because with YesExpress, you can get an answer or a commitment letter from us on your choice of first mortgage loans fast. In fact, in just 20 minutes! (If it takes longer, we'll give you $10. Guaranteed!)

So check out YesExpress. And get ready to check into your new house.

First Hawaiian Bank

The Answer is Yes.

THE GUARANTEE If it takes longer than 20 minutes to give you a loan decision letter (from the time you submit an application and your purchase agreement (DROA) and then select the type of first mortgage you want), we will pay you $10 cash on the spot. If our decision letter gives you a "Yes" commitment, the interest rate we quote will be good for 30 days. Loan commitment is subject to verification of your credit, available income and value of property to be mortgaged. See our brochure for full details and conditions. YesExpress is available at these First Hawaiian branches: On Oahu—Ewa Beach, Kahala, Kailua, Kapahulu, Kapiolani, Makiki, Moanalua, Pearl City, Pearlridge, Wahiawa, Waipahu, Main Office Residential Real Estate Department and downtown Consumer Banking Center. On the neighbor islands—Hilo, Kona, Kamuela, Lihue, Kahului, Kealakekua, Kihei, Lahaina, Waikoloa, Wailuku.

PERFORMANCE GUARANTEED!

EQUAL HO LEND

Member FD

MARCH 1992
VOL. 51, No. 3
ISSN: 0017-8594

Hawaii Medical Journal

Journals
W1
HA
968

Hawaii Medical Journal
UCSF LIBRARY
Received on: 03-20-92

CONTENTS

HMA COUNCIL HIGHLIGHTS 58

BOOK REVIEW 58
Beyond the Dream: A Search for Meaning
Pauline G Stitt MD

EDITORIAL 59
The threat of penalty
J I Frederick Reppun MD

LECTURE REPORT 62
Robert Peter Gale MD PhD
J I Frederick Reppun MD

HETEROTOPIC BONE FORMATION IN ABDOMINAL INCISIONS 65
Jonathan Charles MD
John A Hunt MB BCh FRCS (Edin)

MARIMED FOUNDATION PRESIDENT'S REPORT 71
David D Higgins

NEWS AND NOTES 75
Henry N Yokoyama MD

MAKA O KA KAUKA 82
Russell T Stodd MD

U OF CALIFORNIA-SF
LIBRARY
SERIALS DEPT, BOX 0840
530 PARNASSUS AVE
SAN FRAN, CA 94143-0840

HAWAII MEDICAL ASSOCIATION · 1856 ·

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively

Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

Hawaii Medical Journal

(USPS 237-640)

Published Monthly for the
Hawaii Medical Association
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor: J I FREDERICK REPPUN, MD
Founding Editor: HARRY L ARNOLD JR, MD
News Editor: HENRY N YOKOYAMA, MD
Contributing Editors: STEPHEN RPK BRADY, MD, FRANCIS H FUKUNAGA, MD,
Editorial Assistant: DAISY CANITE
Publisher: STEPHEN S LENT

Editorial Board
NORMAN GOLDSTEIN, MD,
ROBERT TS JIM, MD
JAMES LUMENG, MD
FRANCIS D PIEN, MD

Publications Committee: MYRON E SHIRASU, MD (Commissioner)
HENRY N YOKOYAMA, MD (Chairman)
ERLAINE BELLO, MD
STEPHEN RPK BRADY, MD,
NADINE BRUCE, MD
NATHANIEL PH CHING, MD,
RICHARD CHUNG, MD
ALVIN FURUIKE, MD,
FRED GILBERT, JR, MD
ROBERT HOLLISON, MD
AMOD JAIN, MD
ROBERT JIM, MD,
JAMES LUMENG, MD
BAL RAJ MEHTA, MD
FRANCIS PIEN, MD,
J I FREDERICK REPPUN, MD,
KIM THORBURN, MD
TERRY CY WONG, MD
GWEN FU (HMA Auxiliary)

OFFICERS
President: STEPHEN J WALLACH, MD
President-Elect: JEANETTE HJ CHANG, MD
Past President: JOHN T MCDONNELL, MD
Secretary: ANDREW DON, MD
Treasurer: JOHN S SPANGLER, MD

County Presidents
Hawaii: RICHARD KM LEE-CHING, MD
Honolulu: CALVIN YH WONG, MD
Kauai: LARRY MAGNUSSEN, MD
Maui: LEONARD H SAKAI, MD
West Hawaii: MINOLU R CHENG, MD

Delegates to AMA
CALVIN CM KAM, MD
RUSSELL T STODD, MD
Alternate Delegates to AMA
STEPHEN J WALLACH, MD
JOHN T MCDONNELL, MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237-640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Non-member subscriptions are $18. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Printed in U.S.A.

The Backworks Difference

Behind the Scenes...



Looking at all the issues to help you fairly and effectively manage your patients.

BACKWORKS HAWAII Inc.

456-7077
945 Kam Hwy.
Pearl City, Hawaii

Neck and Back Rehabilitation

DYNASTY II

Award Winning Chinese Cuisine

Featuring Numerous Delicacies such as Peking Duck, Imperial Shark's Fin & Live Ocean Seafood

- *Beautiful Sunset View Overlooking KewaloBasin, Fisherman's Wharf*
- *Ample Parking*
- *Luxurious Chinese Antiques Ambiance*
- *Spacious, Private Banquet Facilities*
- *Luncheon Buffet*
- *Orders to Go*
- *Gift Certificates Available*

DYNASTY 七皇酒家

Lunch: 11am to 2 pm • Dinner: 5:30 pm to 10 pm

Ward Warehouse • Second Floor
1050 Ala Moana Blvd.
531-0208



WHAT KEEPS YOUR FINANCES IN MINT CONDITION?

Private Financial Services.

You always seek the best. When it comes to managing your assets, your approach is no different. Consider Private Financial Services from Bank of Hawaii.

This highly specialized group offers the ultimate in private banking. An officer assigned to you coordinates all your banking, trust and investment activities. At no extra cost to you. The goal always: maximizing your assets, while minimizing your risks.

If your annual income has reached $100,000 and your net worth is $300,000 or more, excluding your primary residence, you require banking that keeps your finances in mint condition, so they'll increase in value. Call 537-8663.

1909S,VDB
Lincoln Copper Penny,
now worth over $1,000 in
uncirculated condition.

Bank of Hawaii
HAWAII'S BANK

MEMBER FDIC

ONCE DAILY 180mg Calan® SR verapamil HCl 180 mg
SUSTAINED RELEASE CAPLETS

The recommended starting dose for Calan SR is 180 mg once daily. Dose titration will be required in some patients to achieve blood pressure control.

A lower initial starting dosage of 120 mg/day may be warranted in some patients (eg, the elderly, patients of small stature).

Constipation, which is easily managed in most patients, is the most commonly reported side effect of Calan SR.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol and propranolol clearance may occur when either drug is administered concomitantly with verapamil. A variable effect has been seen with combined use of atenolol. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Verapamil may inhibit the clearance and increase the plasma levels of theophylline. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. There was no evidence of a carcinogenic potential of verapamil administered to rats for 2 years. A study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes, reversible non-obstructive paralytic ileus. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, galactorrhea/hyperprolactinemia, increased urination, spotty menstruation, impotence.

4/11/91 • P91CA6277V

Address medical inquiries to:
G D Searle & Co
Medical & Scientific
Information Department
4901 Searle Parkway
Skokie, IL 60077

SEARLE *G D. Searle & Co*
Box 5110, Chicago, IL 60680

A91CA6148T



Highlights of the HMA Council Meeting of February 7, 1992

The meeting was called to order by President Stephen Wallach at 5:52 pm. The members present were: J Chang, A Don, J McDonnell, J Spangler, C Kam, R Stodd, F Holschuh, L Howard, L Magnussen, M Cheng, P DeMare, HH Chun, R Embry, R Kimura, HKW Chinn, M Shirasu, C Kadooka, R Goodale, J Betwee, H Percy, T Smith, G Goto, J Lumeng, WWY Chang, A Kunimoto, J Gaspar - medical student rep; F Reppun - Editor HMJ; J Armstrong TAMC Res Phys Rep; V Woo - Legal Counsel; S Foo - HMAA Treasurer; guest W Foo, and N Kaneshiro - med student. HMA staff present were: J Won, N Jones, B Kendro, J Asato, L Tong, P Kawamoto, J Estioko, K Rinehart, and M Lindsey - recording secretary.

It was agreed to support "HOPE for Battered Women" and for the listing of HMA on the masthead of Domestic Violence Task Force stationery.

A letter supporting HINO and the Graduate Student Organization requesting the UH Board of Regents divest itself of all stock and other financial interests in companies that trade or manufacture tobacco products was approved.

The Council approved sponsorship of a breakfast meeting for the Interagency School Planning Group, a grassroots committee of the Department of Health and Department of Education in which HMA participates through the HMA Children and Youth Committee.

It was agreed that the completion of the second phase renovation of Kona Hospital, which has been delayed by the State, was an urgent priorty.

Numerous legislative issues were discussed and recommendations made by the Council. Inquiries should be referred to the HMA office. Specifically, the Council was opposed to HB 2405 as well as to another legislative bill that recommended that 14 to 18 year olds be granted rights similar to those of adults seeking medical care.

The Council supported the concern of resident phyicians and medical students regarding student loans which require immediate payback after graduation without regard to the length of additional training periods and the interest burden.

Congratulations were extended by the Council to Richard Lee-Ching, Kevin Kurohara, Katherine Palmeroy, WA Shrader, and Scott Miles for their volunteer services during the health crisis on the Big Island following the accidental geothermal explosion and toxic gas emission a while back. The State DOH had offered to pay them but these humane doctors decided to donate their services. Let's have more of this!

John McDonnell's recruiting drive is gearing up; he's urging each of us to bring in a new HMA member this year.

Andrew Don, Secretary

Book Review

Beyond the Dream: A Search for Meaning

THOMPSON, LAURA, *Beyond the Dream: A Search for Meaning,* MARC Monograph Series, No. 2, Micronesian Area Research Center, University of Guam, 1991.

Anthropology and medicine share mutual concerns. Island physicians will find much of interest in the informative autobiography of an Island child, a Honolulu haole, Laura Thompson, who grew up to be an anthropologist of world renown. The cultural richness of Hawaii got her off to a good start and her life brought firsthand experience in Fiji, Guam, Hawaii, Iceland, and among the Hopi and other Native American Indian groups.

Dr Thompson worked with the Chamorros, the indigenous people of Guam. Those experiences led to her book *Guam and Its People,* a work of special interest to many physicians in Hawaii.

Child psychiatrists and pediatricians will be particularly interested in reading of the emergence of growth and development concepts and the use of multidisciplinary approaches in field work. As coodinator for the Indian Personality and Government Project, she worked with those she describes as "outstanding explorers of the psyche," among them Drs Margaret Mead, Ruth Benedict, Erik Erikson, Bruno Klopfer, and Clyde Kluckhohn.

Dr Thompson's memoirs and other writings are relevant to today's concerns in working with individuals and communities of diverse cultures. We are privileged to have these distillations of this distinguished anthropologist's personal and professional perspectives.

— Pauline G Stitt MD



The threat of a penalty

John H Houk MD, Immediate Past President of the Hawaii Society of Internal Medicine, has a legitimate brief and complaint against HMSA as regards its threat to impose a penalty on any physician who fails to obtain preauthorization for an action in certain circumstances of practice on a patient. He provided us with a copy of his complaint.

HMSA's Manager of its Professional Relations Department has responded, and we have obtained written consent by Senior Vice President Bernard AKS Ho for the correspondence between Houk and HMSA to be published in the *Journal*.

As is our policy, we try to publish both sides of a controversy in the same issue, rather than wait for the response to a problem and publish it in a subsequent issue. The readers can then make an immediate judgment on their own; we welcome comments from them.

J I Frederick Reppun MD
Editor

Letter to HMSA from John H Houk MD

November 20, 1991

Mr Steven AJ Lung
Manager Professional Relations Department
Hawaii Medical Service Association
PO Box 860
Honolulu, HI 96808-0860

Dear Mr. Lung:

Medical Care in Hawaii is in the headlines across the nation. We are a model in providing access to care for the citizens of Hawaii. Today, on the news, I heard that small businesses in Hawaii have one of the lowest costs in the nation of providing medical care to their employees. In Hawaii we have one of the shortest hospital stay rates in the nation. We have a Medicaid program and a SHIP program that function reasonably well. Part of the reason for this success story is because of the willingness of Hawaii physicians to treat patients in a professional manner and to work closely with the third party carriers to control costs.

Hawaii has one of the highest participation rates with Blue Cross/Blue Shield in the nation. We also have one of the highest Medicare participation rates. This to me indicates that physicians have both a need, as well as a desire to work with third party carriers. There is a relationship of mutual trust implicit in any participation agreement.

It was therefore with great dismay that I was first notified of your plan for a $300 benefit reduction applied to the participating provider for services rendered without required preauthorization. Such extreme punitive damages against physicians jeopardizes that trusting relationship that is so critical to the success of our controlling health care costs in the future. Why does HMSA in its wisdom want to apply such a penalty to the physician community when we are already performing near the top of the nation in regards to our hospital rate and our length of stay? Such policies by HMSA seem very shortsighted and add a significant "hassle-factor" to an already burdened physicians' medical practice. It further erodes the relationship of trust between the physician and the third party carrier. In your letter you imply that it is the employer who is requesting this preauthorization "benefit". It is however clear to me, as well as other physicians, that it is not the employers who are the driving force behind this movement. It is in fact those at HMSA who feel that such a policy will in fact reduce the cost of care.

You are well aware that there is no good scientific data that such a managed care program will in fact save money or reduce health care costs. What it does accomplish quite effectively is introduce one more "hassle-factor" into a physician's life and impedes access to medical care for the patients who have such a "benefit". Nothing in my 11 years of practice has dismayed me more than this decision. I would be interested in knowing who at HMSA was responsible for making this final decision. What was the justification for it and what did they hope to accomplish?

I am a participating physician with HMSA. Is this new "benefit" a reward for my decision to participate? Is this to make me feel better about continuing my participation? I would add that nothing in my 11 years of practice has made me closer to ending my participation agreement than this new policy by HMSA.

Mr Lung, I respect your opinion and I have been led to believe that you sincerely want to improve the relationship of trust between the physician and HMSA. This new "benefit" does not help this relationship. I would ask you to answer the above questions and to do everything in your power to reverse this decision. As you well know, I strongly opposed this policy before you made a public announcement of it. I hope it is not too late to put a halt to this new "hassle-factor".

Yours truly,
John H Houk MD
Immediate Past President
Hawaii Society of Internal Medicine

JH/ar
cc: Marvin Hall, HMSA
Bernard Fong, HMSA
Fred Reppun, HMA *Journal*

(Continued) ➤

OK. Let's get down to business.™ Funny how the two objects below resemble one another. But if you had to invest a sizeable chunk of your cash flow in a new phone system, you might fail to see the humor. Which is why you should know about CentraNet® service from GTE Hawaiian Tel. With CentraNet,® you get all the features and flexibility of the most sophisticated business telephone system, without a large capital outlay. So there's no risk of buying too much system, or too little. In fact, there's hardly a risk at all. Because everything you need for CentraNet® to work on your phones is located at our office, not yours. And, you can add lines or change features anytime. For example, if you have an office in one location and expand to another, you can connect the two without incurring any additional expenses. Call us at 1-800-462-6000. Because you do have a choice. Go with ***CentraNet® service.*** Or go with the flow.



Why pour money down either one?

CentraNet® is a registered service mark of GTE Corporation. CentraNet® service is available in most areas.

GTE Hawaiian Tel
Beyond the call

Letter to John H Houk MD from HMSA

December 19, 1991

John H Houk, MD
Hawaii Society of Internal Medicine
1360 South Beretania Street, 2nd floor
Honolulu, Hawaii 96814

Dear Dr. Houk:

Thank you for your November 20, 1991 letter regarding managed care pre-authorization requirements.

I'm sure you would agree that all parties who pay for health care — employers, government, consumers — are greatly concerned about its cost. Among many activities, the establishment of the Governor's Blue Ribbon Panel on Health Care demonstrates the level of public interest in addressing health care costs in addition to other issues of access and quality.

The changes recently made by HMSA in our managed care plans were intended to both anticipate and respond to the demands of both employer groups and members purchasing our fee-for-service plans. For example, the Federal government has insisted that HMSA incorporate managed care in its medical coverage for Federal employees, making providers responsible for its implementation. We want employers concerned about rising costs to know they can receive from HMSA the managed care controls they expect to assure appropriate and economical use of health care resources. At the same time, members who elect to obtain care from participating physicians gain protection from any benefit reductions due to managed care requirements, thus strengthening their incentive to seek services from participating physicians like yourself.

We agree that physicians in Hawaii have generally supported actions to improve access to care and played a key role in maintaining utilization at among the lowest levels in the nation. We do not necessarily believe that managed care programs will achieve the same kind of benefit savings in Hawaii that may have been demonstrated in specific areas on the Mainland.

However, HMSA has learned from experience that employer groups will not hesitate to substitute plans with more restrictive delivery systems in place of our fee-for-service plans if they feel those plans will better control costs. By accepting responsibility for managed care, participating physicians receiving fee-for-service payment will be able to compete with other plans whose physicians support managed care requirements.

HMSA's actions are not intended to threaten physicians, find excuses to impose penalties upon them, or introduce an additional "hassle-factor". We are conducting a variety of activities to make physicians aware of the managed care process and avoid penalties. This includes waivers of benefit reductions for a three-month period, sending of reminder letters, and personal contact by Professional Relations representatives.

The administration of managed care pre-authorization will be fair and reasonable. Physicians will not be penalized for failing to pre-authorize acute or emergency admissions in advance. In these cases, notification may be made within two working days after admission or even later if the physician was not able to verify coverage. The $300 penalty will be imposed only after the physician has been given an opportunity to become familiar with the managed care process and fails to demonstrate a good faith effort to follow it. We anticipate that provider compliance and administrative flexibility on HMSA's part will keep benefit reductions to a minimum.

We have also taken steps to provide physicians with convenient access to the managed care process. Physicians or their office staff may call us during regular office hours, leave information on our answering machine after we are closed, or transmit information via facsimile transmission. Patient coverage codes may be confirmed by calling Professional Relations, our Managed Care number, or by making use of Infobot, HMSA's membership verification system.

We recognize that managed care must be able to achieve savings which outweigh its administrative costs to physicians and HMSA. The effectiveness of our programs will be evaluated, and modifications made as necessary. For example, we are currently in the process of phasing out our Mandatory Second Surgery Opinion program from managed care plans because it has not been cost-effective.

If we can agree that managed care is likely to be with us in the foreseeable future, our shared objective should be to make it as workable and efficient as possible. We welcome any suggestions for improving our managed care programs or identifying problem areas that should receive further attention.

If you would like to further discuss our Managed Care Programs, please call me at 944-2190.

Sincerely,
Stephen AJW Lung
Manager, Professional Relations

cc: Dr Jeffrey Fong, HSIM
Bernard Ho, HMSA

Lecture Report

Robert Peter Gale MD PhD

Thanks to the UH School of Medicine and the Robert T Wong Foundation, Robert Gale, the bone marrow transplant expert from UCLA Medical Center who was asked by Mikhail Gorbachev of the former Soviet Union to "come immediately" to help the Soviets deal with the Chernobyl power reactor explosion in April 1986, was in Hawaii for a series of lectures the week of 27 January.

His first lecture at noon on the 28th was on *Bone Marrow Transplantation,* given at the regular surgical meeting at The Queen's Medical Center in the John A Burns School of Medicine tower; Brian Issell MD, Director of the Cancer Research Center of Hawaii, introduced the speaker in the absence of Bradley Wong MD, head of the department, who was busy with the Pan-Pacific Surgical Congress going on the same week in Waikiki.

Livingston Wong has been to Gale's BMT Center at UCLA and has done about 70 of the procedures here at St Francis Medical Center. The salient points of Gale's lecture revealed his intense dedication to the cure of cancer, and particularly leukemia in children. BMT, in conjunction with radiation and chemotherapy, and with the enticing concept in the future of gene therapy of the extracted marrow, offers a significant rate of survival of patients with leukemia, aplastic anemia or Thalassemia major. The latest is autologous BMT, which obviates the graft-versus-host phenomenon; 6,000 of these were done worldwide in 1991 with not a single GvHD. There is now a central registry in Milwaukee, of which Gale is the chair, and close to a million HLA-compatible donors listed, 450,000 of them in the U.S.

Gale next addressed the subject of *Leukemia: What's the Best Treatment?* at the Cancer Research Center of Hawaii at noon on the 30th; Dr Issell again chaired the meeting, the audience consisting of a large number of oncologists, physicians and nurses. Gale pointed out, in summary, that it is as yet impossible to say that BMT does better than the standard protocols that are currently in vogue. Interestingly, he pointed out that the $100,000 to $200,000 cost of such a procedure should be compared with the worth of a year(s) of life saved if the procedure is successful, rather than per se.

The third lecture was the sixth annual Wong Foundation one, given in the auditorium of the medical school that same afternoon. Dr Gale talked on *Medical Care in the Soviet Union.* He was introduced by Dean Chris Gulbrandsen to a mixed audience that included the general public. Gale said he first went to the USSR in 1970 at the request of the U.S. State Department, but since Chernobyl he has been going for a week out of each month in order to organize a long-term follow-up of the 600,000 people who were exposed to the radiation generated by the explosion and fall-out at Chernobyl. Some 200,000 of these were the workers and personnel who succeeded in immediately putting out the fires at the reactor plant and then sealing it up in a sarcophagus of 300,000 tons of sand, steel and concrete. Amazingly, only 31 have died as a result of the explosion, 2 of them killed instantly. However, the after-effects must be monitored for the next 30 to 50 years (incidentally, the sarcophagus is cracking open and the hot core is "melting down" toward China!)

Gale's litany of deficiencies in the USSR medical system was a sad tale of woe and increasingly so as the Union has broken up. The old regime had done wonders in resolving the problems of sanitation, child care, immunization and access to medical care, but it had not done well when it came to the treatment of heart disease, cancer and stroke — things that required long-term care. Gale indicated this was partly the result of so much of the country's GNP having been devoted to building up the military and the nuclear weapons program to counter that of the U.S. Although the Soviet physicians were sharp, it was obvious they lacked the professional interrelationship with their peers in the rest of the world over the past 70 years under a dictatorial communist system. The Russian physician's pay is the same as a streetsweeper's. The current lack of food and ordinary goods is noticeable in the stores. The ruble has no value whatever, except in the thousands; the people's savings are gone.

Dr Gale's last speech was on the subject of *Nuclear Energy, Nuclear Reactors and Nuclear Weapons.* This was held at The Queen's Medical Center Mabel Smyth auditorium on Friday morning the 31st primarily for physicians and staff of the Center but also for the public. I was tendered the honor of introducing Bob Gale and did so by extolling his accomplishment in writing the book *Final Warning* with attorney and author Tom Houser in 1988. The following is how I reported this, the best of the Gale lectures (he did address 2 more small groups in between that I missed):

He started out at once with slides on the big screen, showing a map of European USSR and pointing out Kiev in the South, a city of well over a million people. Chernobyl is 110 km, 66 miles, to the Northwest and the nuclear reactor that generates electric power is on a river that flows toward Kiev . The town of Pripiyat is only 6 km away to the North and was built to house the personnel of that plant, numbering some 49,000 workers and their families.

Using photos taken by Satelland that circles in the stratosphere around the Earth some 6 miles high every 60 to 90

(Continued) ➤

Listen to your heart.

Sandra called me on the way to work to remind me about our family dinner tonight.

Emily left a message on my AMS: 'I love you, Daddy.'

I called her back and said, 'I love you, too.'

Nothing feels better than keeping in touch.

Island-wide coverage. Personalized service. And more cellular options to meet your communication needs. At Honolulu Cellular, we know phones aren't just for business any more. Because some things are too important to lose touch with.

Discover the communication choice you can depend on.

Only at Honolulu Cellular.



We feature state-of-the-art cellular phones by Motorola.



Honolulu Cellular

Hawaii's Cellular Leader

1161 Kapiolani Boulevard / 545-4765 • Grosvenor Center, 737 Bishop Street / 528-6161 • 98-1238 Kaahumanu Street, Suite 100 / 487-CELL

minutes, Gale showed remarkable pictures of the Chernobyl reactor, the cooling pool that connected with the Dnieper via the Pripiyat river. "The American satellite can identify when the power is on or off by the heat released into the pool; in fact it can almost tell when the personnel are having lunch," Gale said. He showed slides of the interior control room and then spectacular ones of the radio-active plume that was still rising above the destroyed building when Gale viewed it from a circling Russian helicopter, before and after it was entombed in a 300,000 tone sarcophagus of sand, steel and concrete later on. He pointed out that the slide was smoky because of the radiation affecting the emulsion as he flew over. He also pointed out that since then, this massive sarcophagus is cracking and slowly sinking as the melt-down core continues to burn its way into the ground below.

"A nuclear accident anywhere is an accident globally," Gale emphasized, as he showed us how the Satelland plotted the spread of the radioactive fallout photographically, first toward Scandinavia, then over the whole of Europe except Spain and ultimately over the Northern hemisphere, detectable over the State of Washington in the U.S.

He showed a picture of the 1,100 buses that were lined up to evacuate the town of Pripiyat in a matter of hours, and of the deserted town that will never be livable again. It is to be left to crumble and deteriorate with age — even the 4-story concrete apartment buildings — rather than be bulldozed and buried, which would be too hazardous for the workers to do. Interestingly, Gale kept saying "we" did this or that, as if he considered himself one of the Russians! "*We*" evacuated a total of 135,000 people from the area most highly contaminated by the fallout," he said. He related that a hundred small villages in Byeloruss had survived Napoleon and Hitler, "but there was no surviving Chernobyl's fallout, not for a hundred years!" He showed a map of Byeloruss that indicated the areas of radioactivity. It was roughly 20% of the whole. The seriousness of this disaster is compounded by the fact that the Ukraine and Byeloruss were the breadbasket of the USSR.

He showed pictures of the workers dressed in protective clothing as they built the sarcophagus, supposed to rush in, work frantically for 2 minutes only (although many, heroically, stayed longer to get the job done), being irradiated with a lifetime, whole-body dose the while. (I realized then why 200,000 workers were potential victims that need to be followed medically the next 50 years!), plus the 400,000 other people who were exposed.

I was totally surprised to hear Gale say that there had been 249 nuclear accidents the world over, prior to Chernobyl! The Russian medics had devised a dosimetry on a clinical basis, since the amount of radioactivity was too high to 'count': They calculated the whole-body affect by the symptoms and signs that evolved — skin burns, nausea and vomiting, bloody diarrhea, a dropping WBC, etc. Gale explained that the LD-50 dose is 5 Gy (equivalent to 300 rads or rems); this is now a much lower level than what was first estimated after Hiroshima and Nagasaki, the result of penetrating gamma rays. He spoke of a radiation of 50 Gy (5,000 rads) that would evaporate a human being, leaving only a tattooed shadow outline on the concrete wall behind that person.

Standard supportive treatment consisted of antibiotics, blood transfusions, large transfusions of platelets and the hematopoietic growth factors such as GM-CSF. Gale showed slides of patients in plastic, sterile "bubbles" and of the doctors attending them.

Switching to the question of nuclear power, Gale made a good case for that despite the unavoidable risks of technological accidents, as well as the fact of human error in operating nuclear power plants, the disposal of wastes, etc. He compared it with the adverse effects of using fossil fuels. He did not think that geothermal energy, wind energy or solar energy could possibly supply the increasing demand for electricity that the world's projected population, doubling as it has at ever shorter intervals, will need. Hydro-electric power derived from building dams also has its bad side, he said, citing the Egyptian experience with an epidemic of early blindness.

Gale stated that nuclear power is here to stay. The fear of radiation is unwarranted for the most part. Radiation is all around us, some of it man-made, but most of it natural. "People in New York City take in 6 Gy in a lifetime, whereas those in Denver absorb 25 Gy," he said, "but you don't see people moving from Denver to NYC for that reason! Biologically speaking, it makes no difference."

Gale's final point about nuclear weapons, on the other hand, was quite telling. "People simply do not understand that a 1-megaton bomb has 70 times the force of 'Fat Boy' dropped as an airburst over Hiroshima and just one such exploded at ground level could possibly have a global impact in terms of high level radiation.

In contrast to his rather equivocal but understandable stance on nuclear power, for which some people would fault him, Gale came down hard on the matter of nuclear weapons, their manufacture, testing, stockpiling; the disposal of waste products that are contaminating localities and people; and the problem of continuing the cycle in the face of no more "evil empire" at which to aim and fire these instruments of genocide.

Nuclear power, on the other hand, has already captivated the world. That genie cannot be put back into the bottle, but the conversion of uranium into weapons grade plutonium and tritium should be aborted, with the U.S. leading the way by example, Gale stated.

Many physicians in the audience came up to me later and in the days following, impressed by Gale's tremendous knowledge and by his capacity to put across to an audience the dangers inherent in the fissioning of an atom. At the same time, he could not wish that away, despite what he had experienced at firsthand as a consequence of Chernobyl, considering its benefits to medicine and its potential for limitless energy for the benefit of mankind and for saving the environment on this planet by releasing us from the of with fossil fuels.

This unusual person, a physician with an atomic fire burning inside of him, seems to be on just 2 tracks of dedication: (1) To conquer cancer and particularly leukemia; and (2) to organize to monitor the 30-to-50-year consequences of Chernobyl.

J.I. Frederick Reppun MD
Reporter

Heterotopic bone formation in abdominal incisions

Jonathan Charles MD Pathology*
John A Hunt MB BCh FRCS FRCS (Edin) Surgery**

Heterotopic bone formation in vertical abdominal wounds is a not infrequent and sometimes disabling complication of abdominal surgery, occurring predominantly in males. Excision of the bone is indicated only for marked discomfort or pain, usually produced by an active lifestyle. Under these circumstances, recurrence of bone following excision, would be highly undesirable and the prophylactic use of etidronate disodium may well be indicated to prevent new bone formation, as demonstrated by one of our cases (Case 8).

Introduction

Heterotopic bone formation in scars of abdominal incisions is not a rare occurrence, yet few reports are present in the literature[1-9]. We report 8 recent cases, all males, in one of whom the bone recurred after excision; in another, prophylactic treatment was given to prevent recurrence of bone formation in the surgical wound, using etidronate disodium (EHDP: Didronel). We present a review of the literature regarding heterotopic bone formation in abdominal wounds, indications for surgery and possible uses of EHDP.

Case reports

Case 1

A 53-year-old white male health professional underwent a subtotal gastrectomy for adenocarcinoma of the stomach, through a vertical incision. Two years later the patient died from metastatic disease. At autopsy, heterotopic bone formation was present in his abdominal scar.

Case 2

A 72-year-old retired white man underwent a partial colectomy for adenocarcinoma of the colon, through a vertical incision. Four months later bone formation was discovered in the scar and was surgically excised.

Case 3

A 45-year-old disabled white male laborer underwent vagotomy and pyloroplasty for intractable duodenal ulcer, through an upper midline incision. At the postoperative visit, induration was noted in the wound, which progressed to radiologically proven bone. His lifestyle was not hindered by the bone, which was thus left alone and has not changed in 3 years.

Case 4

A 69-year-old retired white man underwent palliative esophagectomy for advanced adenocarcinoma arising in Barrett's esophagus, through an upper midline and a separate right thoracic incision. Six weeks later bone 5 cm long was noted in the upper part of the vertical midline incision. This did not hinder him and was left alone.

Case 5

A 44-year-old white truck driver underwent a vagotomy, pyloroplasty and fundoplication for severe acid-pepsin disease, plus esophagitis. After several months, he was noted to have a piece of bone 3 x 2 cm in size at the upper end of his wound, near the xiphoid process. This did not progress nor interfere with his activities and was left alone.

Case 6

A 70-year-old retired white man underwent a high partial gastrectomy for gastric lymphoma. Two months later, in follow-up, he was noted to have a piece of bone about 5 cm long by 2-3 cm wide in the upper part of his abdominal scar. His main activity was walking and the bone did not hinder him, so it was left alone.

Case 7

A 40-year-old white laborer underwent drainage of a pancreatic pseudocyst through an upper midline incision. Bone formation was noted 3 weeks later in the scar. The bone was 10 cm long and bowed anteriorly, extending from xiphoid to umbilicus. As he became more active, it hindered his activities and was excised. The bone recurred but was only about 5 cm in length and no further surgery was performed.

Case 8

A 49-year-old white male plasterer underwent a cholecystectomy, appendectomy and repair of an umbilical hernia through an upper midline incision. Bone formation was noted 3 weeks later in the scar. The bone was large (6 x 4 x 3 cm), bowed forward, and continuous with the xiphoid process. The bone interfered mechanically with movement and was painful

(Continued on page 67) ➤

* Kauai Medical Group and Wilcox Memorial Hospital
Lihue, Hawaii
** Cabell Huntington Hospital, St Mary's Hospital and Marshall University School of Medicine
Huntington, West Virginia

Received for publication March 1, 1991.



ONLY ONE H_2-ANTAGONIST HEALS REFLUX ESOPHAGITIS AT DUODENAL ULCER DOSAGE. ONLY ONE.

Of all the H_2-receptor antagonists, only Axid heals and relieves reflux esophagitis at its standard duodenal ulcer dosage. Axid, **150** mg b.i.d., relieves heartburn in **86%** of patients after one day and **93%** after one week.[1]

AXID®
nizatidine
150 mg b.i.d.

ACID TESTED. PATIENT PROVEN.

1. Data on file, Lilly Research Laboratories.

See accompanying page for prescribing information.

© 1991, ELI LILLY AND COMPANY

NZ-2947-B-249304

AXID®
nizatidine capsules



Brief Summary. Consult the package insert for complete prescribing information.

Indications and Usage: 1. *Active duodenal ulcer*– for up to 8 weeks of treatment at a dosage of 300 mg h.s. or 150 mg b.i.d. Most patients heal within 4 weeks.

2. *Maintenance therapy* – for healed duodenal ulcer patients at a dosage of 150 mg h.s. at bedtime. The consequences of therapy with Axid for longer than 1 year are not known.

3. *Gastroesophageal reflux disease (GERD)*–for up to 12 weeks of treatment of endoscopically diagnosed esophagitis, including erosive and ulcerative esophagitis, and associated heartburn at a dosage of 150 mg b.i.d.

Contraindication: Known hypersensitivity to the drug. Because cross sensitivity in this class of compounds has been observed, H_2-receptor antagonists, including Axid, should not be administered to patients with a history of hypersensitivity to other H_2-receptor antagonists.

Precautions: *General*– 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests– False-positive tests for urobilinogen with Multistix® may occur during therapy.

Drug Interactions– No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility– A 2-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a 2-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups.The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a 2-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy – Teratogenic Effects – Pregnancy Category C– Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in 1 fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in 1 fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers– Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use– Safety and effectiveness in children have not been established.

Use in Elderly Patients– Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Worldwide, controlled clinical trials included over 6,000 patients given nizatidine in studies of varying durations. Placebo-controlled trials in the United States and Canada included over 2,600 patients given nizatidine and over 1,700 given placebo. Among the adverse events in these placebo-controlled trials, only anemia (0.2% vs 0%) and urticaria (0.5% vs 0.1%) were significantly more common in the nizatidine group. Of the adverse events that occurred at a frequency of 1% or more, there was no statistically significant difference between Axid and placebo in the incidence of any of these events (see package insert for complete information).

A variety of less common events were also reported, it was not possible to determine whether these were caused by nizatidine.

Hepatic– Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to 3 times the upper limit of normal, however, did not significantly differ from that in placebo patients. All abnormalities were reversible after discontinuation of Axid. Since market introduction, hepatitis and jaundice have been reported. Rare cases of cholestatic or mixed hepatocellular and cholestatic injury with jaundice have been reported with reversal of the abnormalities after discontinuation of Axid.

Cardiovascular– In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in 2 individuals administered Axid and in 3 untreated subjects.

CNS– Rare cases of reversible mental confusion have been reported.

Endocrine– Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with similar frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic– Anemia was reported significantly more frequently in nizatidine than in placebo-treated patients. Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental– Urticaria was reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity– As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other– Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. The ability of hemodialysis to remove nizatidine from the body has not been conclusively demonstrated; however, due to its large volume of distribution, nizatidine is not expected to be efficiently removed from the body by this method.

PV 2093 AMP [101591]

Additional information available to the profession on request.

Lilly

Eli Lilly and Company
Indianapolis, Indiana
46285

NZ-2947-B-249304

©1991, ELI LILLY AND COMPANY

HETEROTOPIC *(Continued from page 65)*

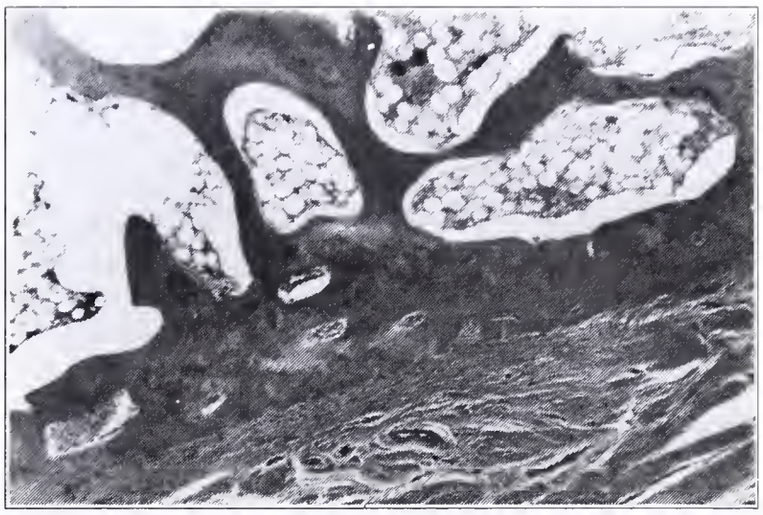


Figure 1: Case 8. Mature lamellar bone with sinuses containing fat and hematopoietic tissue, bordered by dense connective tissue. No cartilage is seen in this particular section. (Decalcified, paraffin-embedded, hematoxylin-eosin stain; magnification x40).

during his work as a plasterer. One month prior to its surgical excision, the patient was placed on a daily regimen of Didronel, 20 mg/kg/day. This dosage was continued for 3 months post-operation. There has been no recurrence of bone in the scar to date, 6 years following the excision.

The patients were of normal weight and not obese. They had no prior history of bone formation in other locations. In all cases the surgical incisions encroached upon the xiphoid process and the heterotopic bone later developed in the upper portions of the scar — in Cases 7 and 8 the heterotopic bone was actually attached to the xiphoid process. The bone varied in length from 3 cm to 10 cm. Otherwise, the scars were formed in a normal fashion.

The bone removed under these circumstances showed no histological difference from other forms of bone and contained lamellar bone, fat and hematopoietic tissue, with varying amounts of cartilage, all bordered by a rim of dense connective tissue. A microscopic section of the bone removed from Case 8 (Fig 1) together with an x-ray of the resected specimen is presented (Fig 2).

Discussion

Heterotopic bone formation in surgical wounds of the abdomen occurs only in longitudinal incisions (as opposed to horizontal ones)[1-8], thus implicating the xiphoid process or symphysis pubis as possible progenitors in its pathogenesis. The bone so formed is usually near to one of these structures, positioned between the anterior or posterior rectus sheath and the rectus abdominis muscle[3,5]. It presents itself anywhere from 3 weeks to several years following operations[2,5].

This bone formation has a distinct male preponderance[1,2,3,5], in that by 1962 only 5 of the 92 reported cases were in women[5]. This may be due in part to the fact that abdominal operations using longitudinal incisions are probably more common in males, considering the male predilection for peptic ulcer disease, carcinoma of the stomach, bladder and prostate. Abdominal operations in females, such as hysterectomies and Cesarean sections are frequently performed through low hori-

(Continued) ➤



Figure 2: Case 8. An x-ray of the specimen piece of bone resected from the patient who had been pre-tested with EHDP.

zontal incisions, while cholecystectomies are often performed through oblique transverse subcostal incisions, away from the costal margin. If bone did form in such incisions, it would very likely not inconvenience the patient, and may in fact not even be noticed.

There does not appear to be any evidence of a familial predisposition to this type of bone formation, though it has been reported in 2 brothers during the same time period[1].

There are basically 2 theories regarding the pathogenesis of heterotopic bone formation in surgical wounds[1-11]. One theory suggests that osteoblasts are derived through metaplasia of multi-potential mesenchymal cells already present in the fascia, or derived from granulation tissue. The second theory postulates that transposition of periosteal or perichondral fragments, disrupted at the time of surgery, will form a nidus for further bone growth. We do not see these processes as mutually exclusive and it is our belief that either of these modes of bone formation may occur, separately or together, keeping in mind that the linea alba is possibly a vestigial remnant of the sternum. There is no evidence linking heterotopic bone formation to any metabolic or endocrine disorder, nor to the nature of the suture material used[6].

The cure for heterotopic bone formation in surgical wounds has generally been surgical excision, with occasional postoperative radiation[6,8,9]. However, we now propose a possible preventive measure with the use of etidronate disodium (EHDP). EHDP is the only drug of its class of compounds — biphosphonates (formerly diphosphonates) — currently on the market. Biphosphonates are structural analogs of pyrophosphate, a naturally occurring inhibitor of bone formation. EHDP prevents the conversion of amorphous calcium phosphate to crystalline hydroxyapatite, the mineral component of bone. Furthermore, it also binds to the hydroxyapatite present, rendering it more resistant to chemical attack by alkaline and acid phosphatases produced by the osteoblasts and osteoclasts respectively[12,13]. It thus slows down both the dissolution and the accumulation of mineral. Also, it appears to interfere with the conversion of osteoblasts to osteocytes and markedly reduces the osteoclast population[12,13,14]. Serum calcium and parathyroid hormone levels are not significantly changed[14], yet in Paget's Disease a marked decrease in both urinary hydroxyproline and serum alkaline phosphatase is noted, reflecting decreased osteoclastic and osteoblastic activity[14,16]. In short, EHDP inhibits both bone remodeling and mineralization.

The principal use of EHDP is in the treatment of Paget's Disease[14-17]. It has also been recommended for heterotopic ossification in patients following severe head or spinal cord injury and following total hip arthroplasty[18,19,20]. EHDP has also been used with varying success in postmenopausal osteoporosis, myositis ossificans progressiva[21,22], calcinosis universalis[23], the prevention of periodontosis[24], and the prevention of calculi in the urinary tract[25]. On an investigational basis, it has been studied for the prevention of atherosclerosis[26]. Recently, the intravenous administration of dichloromethylene diphosphonate (not currently on the market) and EHDP have shown great promise in lowering the serum calcium in patients with hypercalcemia of malignancy[27,28].

The side effects of EHDP therapy are usually manifested only when large or prolonged doses are administered, consisting of gastrointestinal upsets[14,18], osteomalacia (with increased likelihood of pathologic fractures)[12,16,17], hyperphosphatemia[12,14], and an increase in bone pain[16,18].

Apart from its primary use in Paget's Disease, EHDP exerts its most beneficial effect in the prevention of heterotopic bone formation before its actual onset, rather than as treatment[18,20].

Two of our patients (Cases 7 and 8) experienced severe pain and inconvenience from the large ossified fragments in their abdominal wounds. Since in each patient the heterotopic bone was attached to the xiphoid process, there was considerable limitation of their activities as construction workers. It is known that trauma and heavy physical labor can predispose to heterotopic bone formation[2]. With these considerations in mind, and after the bone recurred in Case 7, the next patient (Case 8) received pre- and postoperative EHDP and has not had a recurrence of heterotopic bone formation after 6 years.

REFERENCES

1. Tama L: Heterotopic bone formation in abdominal surgical scars: a report of two cases in brothers. *JAMA* 1966,197(3):151-153.
2. Sanders RL: Bone formation in upper abdominal scars. *Ann Surg* 1955;141(5):621-626.
3. Classen KL, Wiederanders RE, Herrington JL Jr.: Heterotopic bone formation developing in abdominal scars. *Surg* 1960,47(6):918-923.
4. Watkins GL: Bone formation in abdominal scars after xiphoidectomy. *Arch Surg* 1964;89:731-734.
5. Lehrman A, Pratt, JH, Parkhill EM: Heterotopic bone in laparotomy scars. *Am J Surg* 1962;104-591-596.
6. Eidelman A, Waron M: Heterotopic ossification in abdominal operation scars. *Arch Surg* 1973;107:87-88.
7. Marteinsson BTH, Musgrove JE: Heterotopic bone formation in abdominal incisions. *Am J Surg* 1975,130:23-25.
8. Apostolidis NS, Legakis NC, Gregoriadis GC et al: Heterotopic bone formation in abdominal operation scars. Report of six cases with review of the literature. *Am J Surg* 1981, 142:555-559.
9. Spencer GR: Heterotopic bone formation in abdominal incisions. *JR Coll Surg Edinb* 1982,27(4):245-6.
10. Soren A, Waugh TR: The morphologic and pathogenetic bases of heterotopic bone formation in the extremities. *Zentralbl Allg Pathol* 1983,127:91-96.
11. Puzas JE, Miller MD, Rosier RN: Pathologic bone formation. *Clin Orthop Rel Res* 1989,245:269-281.
12. Heaney RP, Saville PD: Etidronate disodium in postmenopausal osteoporosis. *Clin Pharmacol Ther* 1976,20(5):593-604.
13. Plasmans CMT, Juypers W, Slooff TJJH: The effect of ethane-1-hydroxy-1, 1-diphosphonic acid (EHDP) on matrix induced ectopic bone formation. *Clin Ortop* 1978,132:233-243.
14. Alexandre CM, Chaping MC, Vignon E et al: Treatment of Paget's disease of bone with ethane-1, hydroxy-1, 1-diphosphonate (EHDP) at a low dosage (5 mg/kg/day). *Clin Orthop* 1983,174:193-205.
15. Basle MF, Rebel A, Renier JC et al: Bone tissue in Paget's disease treated by ethane-1, hydroxy-1, 1-diphosphonate (EHDP). Structure, ultrastructure, and immunocytology. *Clin Orthop* 1984,184:281-288.
16. Krane SM: Etidronate disodium in the treatment of Paget's disease of bone. *Ann Intern Med* 1982,96(5):619-625.
17. Merkow RL, Lane JM: Current concepts of Paget's disease of bone. *Orthop Clin N Amer* 1984,15(4):747-763.
18. Garland DE, Alday B, Venos KG, Vogt JC: Diphosphonate treatment for heterotopic ossification in spinal cord injury patients. *Clin Orthop* 1983,176:197-200.
19. Thomas BJ, Amstutz HC: Results of the administration of diphosphonate for the prevention of heterotopic ossification after total hip arthroplasty. *J Bone Joint Surg* 1985,67A(3):400-403.
20. Spielman G, Gennarelli TA, Rogers CR: Disodium etidronate: its role in preventing heterotopic ossification in severe head injury. *Arch Phys Med Rehabil* 1983,64:539-542.
21. Elliott DF: Fibrodysplasia ossificans progressiva (FOP) treated with diphosphonate. *Birth Defects* 1974,10:515-520.
22. Smith R, Russell RGG, Woods CG: Myositis ossificans progressiva. *J Bone Joint Surg* 1976,58B:48-57.
23. Cram RL, Barmada R, Geho WB, Ray RD: Diphosphonate treatment of calcinosis universalis. *N Eng J Med* 1971,285:1012-1013.
24. Sturzenburger PO, Swancar JR, Reiter G: Reduction of dental calculus in humans through the use of a dentifrice containing a crystal-growth inhibitor. *J Periodontol* 1971,42:416-419.
25. Baumann JM, Ganz U, Bisaz S, Fleisch H, Rutishauer G: Verabreichung eines diphosphonates zur steinprophylaxe. *Helv Chir Acta* 1974,41:421424.
26. Wagner WD, Clarkson TB, Foster J: Contrasting effects of ethane-1, hydroxy-1, 1-diphosphonate (EHDP) on the regression of two types of dietary-induced atherosclerosis. *Atherosclerosis* 1977,27:419-435.
27. Singer FR: Role of the biphosphonate etidronate in the therapy of cancer-related hypercalcemia. *Sem Oncol* 1990,17(2):34-39.
28. Canfield RE (guest editor): Etridronate disodium: a new therapy for hypercalcemia of malignancy. *Am J Med* (Symposium) 1987,82(2A):1-78.

■

WHEN EXPERIENCE COUNTS, COUNT ON HAWAIIAN TAX-FREE TRUST.

Yes, Hawaiian Tax-Free Trust is an investment you can count on. As the first and largest fund in the Islands investing in municipal bonds, the Trust offers one of the few remaining ways to earn tax-free income together with a high level of safety.

Moreover, as a resident of Hawaii your income from the Trust is free of ***both*** Federal and State of Hawaii income taxes.*

Best of all, you get experienced, locally-based investment management by Hawaiian Trust Co., Ltd.— people you know and can count on.

DOUBLE TAX-FREE INCOME

You'll also enjoy:

- ❑ a high-grade, widely diversified portfolio
- ❑ monthly dividends** by check, or reinvested for you ***without*** sales charge
- ❑ ready liquidity**
- ❑ high current return
- ❑ low initial investment - $1,000

Aquila Distributors, Inc.
820 Mililani Street, Suite 400, Honolulu, Hawaii 96813

❑ ***YES***, tell me more about how I can earn high monthly income and pay no Federal and State income taxes with the Hawaiian Tax-Free Trust. Please send a free prospectus containing more complete information, including all fees and expenses. I will read it carefully before I invest or send money.

Please print clearly

Name:_____

Address:_____

City:_____ State:_____ Zip:_____

Home Phone: (_____) _____

Business Phone: (_____) _____ HMJ

Make an investment that you and Hawaii can count on. For details, talk to your broker. Or call the Trust toll-free today.

1-800-228-4227

HAWAIIAN TAX-FREE TRUST

* Under some circumstances, a small portion of income may be subject to tax for certain investors. ** Share value and dividend rates are not fixed and vary with interest rate fluctuations. Redemptions are at the current net asset value which may be more or less than cost.

© 1992 Aquila Distributors, Inc.

NUCLEAR MEDICINE TEACHING FILE

WHITE CELL SCANNING IN FEVER OF UNDETERMINED ORIGIN

38 year old patient with a fever of undetermined origin postoperatively but no localizing sign.



ANTERIOR PELVIS: Intense white cell accumulation in an abscess overlying the right sacroiliac joint.



RIGHT LATERAL: The right lateral demonstrates that the abscess is anterior to the sacroiliac joint.

Radiolabeled WBC scans should be used for FUO's, osteomyelitis and other inflammatory conditions.

Nuclear Medicine — Non-invasive, physiologic imaging

PACIFIC RADIOPHARMACY, LTD.

A JOINT VENTURE OF
QUEEN'S MEDICAL CENTER, KUAKINI, SAINT FRANCIS,
STRAUB AND THE HONOLULU MEDICAL GROUP.

Marimed Foundation President's Report

David D Higgins*

In 1985, the second year of its existence, Marimed Foundation adopted an ancient Chinese poem as its "operational philosophy:"

"Go to the people, live among them,
learn from them, love them,
start with what they know;
build on what they have;
but of the best leaders,
when their task is accomplished,
their work is done,
the people all remark,
'We have done it ourselves.'"

The poem expresses the idea that true progress in the developing world requires that individuals at the community level accept responsibility for their health status, adopt a belief in their power to effect change, and then begin to take action to improve the quality of life for themselves and their families.

There have been clear signs of this sort of progress in the outer Marshall Islands in the past year. These signs include increased participation in health education classes (particularly among women), the enthusiastic involvement of community leaders in empowerment workshops conducted by its Health Ministry under Marimed's Child Survival Initiative project, and an encouraging increase in the demand for family planning services.

There has also been gratifying progress in the past year in the degree of leadership and control assumed by the Health Ministry over the programs and activities in the outer islands supported by Marimed Foundation's health services ship, *Tole Mour.* This progress, which is the truest measure of the successful collaboration between the Foundation and the Marshall Islands Ministry of Health, is reflected in the changing role of the Foundation in its interaction with the Ministry.

As expressed by *Tole Mour's* last Medical Director, Dr. Ned Hayes, in a recent article in the *Marimed Spirit* newsletter, Marimed's changing role has made 1990 the "transition year," the year the Foundation began the important process of redefining its role, changing it from that of contributor to the delivery of services to that of consultant to the Ministry.

* President, Marimed Foundation
1050 Ala Moana Blvd, Building D
Honolulu, Hawaii 96814

Received for publication on July 29, 1991.

Several significant milestones were reached in the transition year of 1990:

• The mix of Marshallese and expatriate health team members on *Tole Mour* changed dramatically. At the beginning of the year, the typical health team had 7 Marshallese and 7 expatriates or "dri belles;" at the end of the year, the mix was typically 11 Marshallese to 3 dri belles.

• The responsibility for supplying the ship-supported outer island clinics, once shared by the Foundation and the Outer Island Dispensary System (OIDS) office, shifted entirely to OIDS at the end of 1990. Marimed has cleared out its Majuro storerooms, donating nearly a half dozen truckloads of supplies to OIDS and the Majuro Hospital.

• Clinic activities that took place in the medical spaces on board *Tole Mour* in 1989 were nearly all able to be handled ashore in the local dispensaries by the end of 1990. This increase in local capabilities means greater self-sufficiency in the outer islands. It also means that some spaces on *Tole Mour* can now be rededicated to support new programs.

• The role of Shipboard Medical Director, filled for 2 years by Marimed staff physicians, was assumed in December 1990 by the 5 Marshallese MEDEXes who have been rotating aboard ship as Team Leaders: Risong Ankien, Biten Batol, Alec Keju, Yoseph Kintaro, and Kiona Lalimo. This significant accomplishment was made possible largely through the hard work and dedication to training of the 2 outstanding physicians who served as Shipboard Medical Director during 1990, Dr Dick Coughlin and Dr Ned Hayes.

Marimed's emphasis on training paid dividends in other areas as well during the past year. Early in the year, Mr Bake Anta, one of *Tole Mour's* original Marshallese deckhand trainees, landed a position as crew on the Greenpeace ship, *Rainbow Warrior.* And in October, *Tole Mour's* 3 current trainees all completed their one year apprenticeship, were rated Able Bodied Seamen, and were issued internationally recognized seamen's documents.

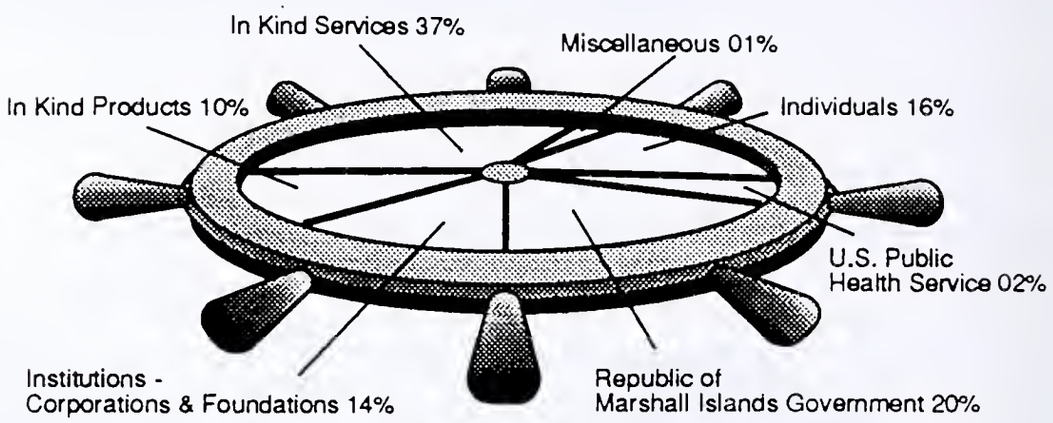
A recap of 1990 would not be complete without a brief mention of the exciting and very successful Student Leadership Development Program conducted for 10 Marshallese and Hawaii students in January 1990 during *Tole Mour's* return to Honolulu for drydocking. It provided the basis for a decision by Marimed's Board of Trustees to expand the Foundation's activities to include a comprehensive, continuing program of marine-based experiential education, skills building, and counseling for Micronesian and Hawaii youth, particularly youth at risk.

Whereas substandard health care was recognized in the Marshall Islands as the crisis of the 1980s, lack of adequate programs and services for youth is rapidly becoming the crisis

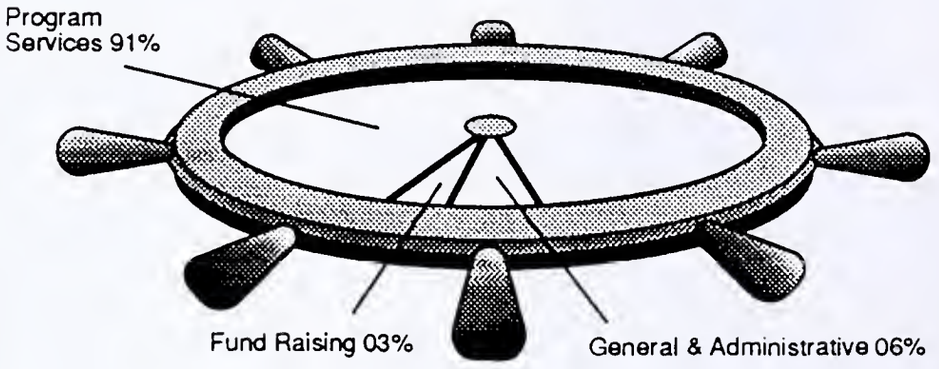
(Continued) ➤

Financial Highlights - 1990

Sources of Income



Operating Expenses



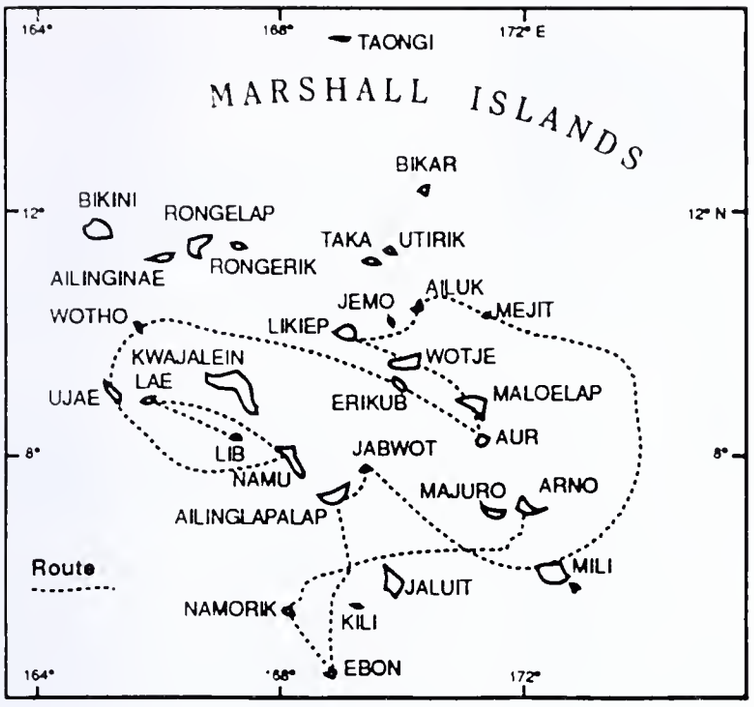
Income Highlights

Total 1990 Cash & In-kind Income	$1,738,556
RMI Government (contract)	350,000
Institutions - Corporations & Foundations	247,382
Individuals	273,538
U.S. Public Health Service	37,252
Miscellaneous	17,312
In-kind Services (medical, dental, and maritime personnel)	633,328
In-kind Products	179,744
Medical and Dental Supplies	38,543
Fuel & Oil Products	46,350
Air Travel	22,549
Other In-kind Products	72,302

Expense Highlights

Total 1990 Cash & In-kind Expenses	$1,721,422
Program Services	1,573,330
General & Administrative	93,014
Fund Raising	55,078

NOTE:
Unrestricted and Restricted Funds are combined here for analysis only; figures are unaudited. Marimed Foundation audited financial statements are available upon request.



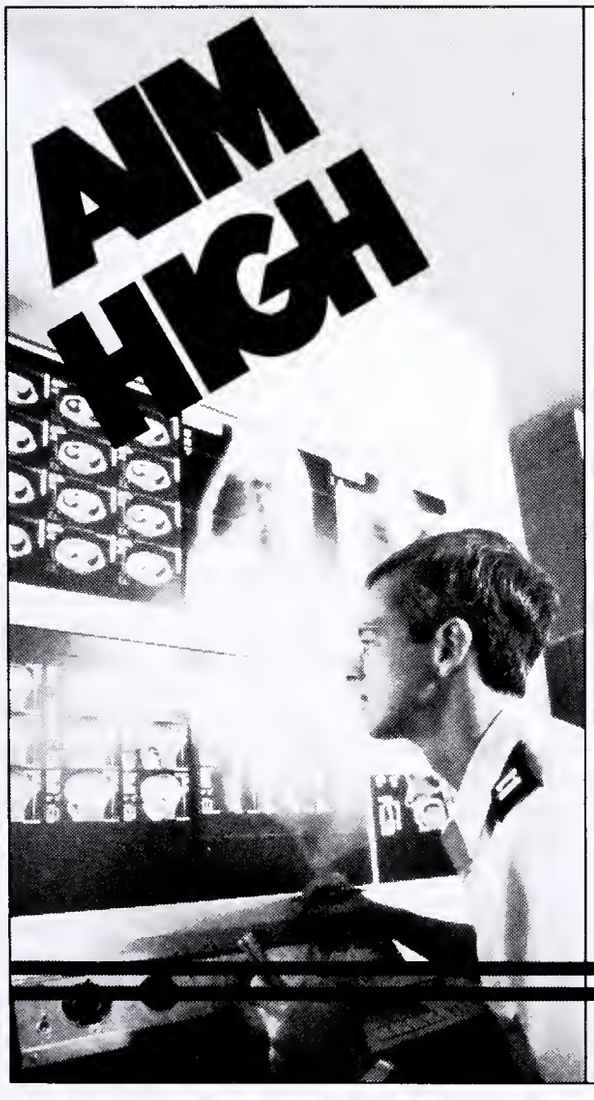
Tole Mour's 1990 Clinics

Atoll	*Dates Visited*	*# Communities*
Ebon	April	2
Namorik	May	1
Ailinglaplap	June	7
Jabot	June	1
Arno	July	8
Mili	August	5
Wotje	Sept	3
Maloelap	Oct	5
Aur	Oct	2
Likiep	Nov	3
Ailuk	Nov	4
Namu	Dec	5
Mejit	Dec	1
Wotho	Dec/Jan	4
Ujae	Dec/Jan	1
Lae	Dec/Jan	1
Lib	Dec/Jan	1

of the 1990s. The annual population growth rate of 4.1% in the Marshalls, the world's highest, has yielded a disproportionately large adolescent population. Substance-abuse and suicide among males in this cohort are major tragedies. There are few job opportunities and a lack of vocational training programs to prepare youth for those opportunities that do exist. Gang activity is appearing for the first time.

Concern in the Marshall Islands for troubled youth is mirrored in Hawaii. Substance-abuse among Hawaii adolescents, increased gang activity, and inadequate State facilities and

(Continued) ➤



SPECIALIZE IN AIR FORCE MEDICINE.

Become the dedicated physician you want to be while serving your country in today's Air Force. Discover the tremendous benefits of Air Force medicine. Talk to an Air Force medical program manager about the quality lifestyle , quality benefits and 30 days of vacation with pay per year that are part of a medical career with the Air Force. Find out how to qualify. Call

USAF HEALTH PROFESSIONS
TOLL FREE
1-800-423-USAF

AIR FORCE

YOCON®
YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.



References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85

AVAILABLE AT PHARMACIES NATIONWIDE

PALISADES PHARMACEUTICALS, INC.
219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

MARIMED *(Continued from page 73)*

programs for juvenile offenders have all induced the State government to seek out new programs to serve adjudicated youth and youth at risk.

Government and private sector leaders in the Marshall Islands have approached Marimed about expanding its current program focus to include special ship-based programs for youth at risk in the Marshall Islands; a feasibility study conducted for Marimed in Hawaii has shown an unmet need for effective counseling and training services for Hawaii youth at risk as well.

The new youth programs, planned for 1992, will complement the Foundation's ongoing health programs by involving Marshallese and Hawaii youth in health-related community projects in the outer Marshall Islands, while providing both vocational skills training (seamanship, carpentry, etc) and life skills training (leadership, self esteem, etc).

Including both Marshallese and Hawaii youth in these programs will provide a unique cross-cultural aspect to the training. The January, 1990 Student Leadership Development Program demonstrated that mixing Hawaii and Micronesian youth is beneficial to the community building process that has become such an important characteristic of life on board *Tole Mour.*

You will be hearing more about these ambitious and exciting plans in the months to come.

■

Marimed Update

October 1991

HONOLULU - Marimed Foundation's tallship *Tole Mour* is returning to her home port of Honolulu, after nearly 20 months of continuous health work in the Marshall Islands.

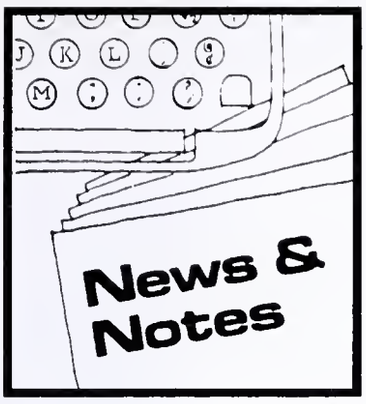
On board *Tole Mour* are 5 teenagers from Hawaii and 5 from the Marshall Islands who will have successfully completed the 4-week 2,500 mile voyage from the Marshall Islands. Their activities included watch standing, marlinespike seamanship (knots, splices, canvas work), basic oceanography, navigation, theory and practical application of sail propulsion, CPR and first aid, history of Pacific island voyaging, basic meteorology, poems and songs of the sea, as well as life skills and related activity training.

Youth participants make passages on *Tole Mour* between Hawaii and the Marshall Islands, or accompany the health teams on board *Tole Mour* in the remote outer Marshall Islands, assisting health workers and engaging in community service projects while receiving vocational and life skills training. Approximately 160 youth (24 at a time), half from Hawaii and half from the Marshall Islands, participate annually in the program. The month-long shipboard experiences will be followed by one year of tracking and support including vocational training and job placement.

Tole Mour, which means "gift of life and health" in Marshallese, has been in service since 1989, carrying teams of Marshallese and volunteer health professionals on regular "rounds" among 59 outer island communities, training local health workers, immunizing children, screening for chronic and communicable diseases, counseling families on family planning, and providing basic dental care.

During the last 3 years *Tole Mour* and her health teams have three times covered 150,000 square miles, made multiple visits to 59 communities, reached 100% of their outer island target population, provided ongoing training to 68 local health assistants and traditional birth attendants, conducted approximately 600 community health education sessions, and logged nearly 40,000 patient encounters.

Ron Olmsted
Director of Development



Henry N. Yokoyama MD

Miscellany

Elephants — Two elephants munching on their hay noticed their trainer urinating against their cage. One elephant said to the other, "How the hell do you suppose that guy breathes through anything that small?"

Kangaroos — An Irishman visiting the London Zoo saw his first kangaroo. Over the cage was a sign, "Australian." "My god," the visitor said, "and to think my sister married one of them."

Birth Control — We are told that a medical team in Hawaii has come up with a major discovery, the product of one of Hawaii's volcanoes. This new product is an infallible birth control device — a tiny piece of cooled lava. You put the piece of lava into the man's shoe and it makes him limp.

[Our thanks to old Tokyo buddy and renowned after-dinner humorist, Joe Sykes, who sent a copy of his hilarious 227-page joke book, "The Obscene Jester", Nome Bay Books, PO Box 5532, Walnut Creek, CA 94596/Ed]

* * *

"My doctor told me jogging would add years to my life. I think he was right. I feel 10 years older already."

(Milton Berle's quote in the *Houston Post*, MWN Nov '91)

Entrepreneurs

Bae-si

Peter Caldwell, pediatric cardiologist with Kaiser's Leeward Clinic, has written a 143-page paperback, "Bae-si: A Doctor Remembers Vietnam" ($9.95 at local book stores). Twenty-five years ago, when he left Travis Air Force Base enroute to Vietnam, Peter, then a Navy physician, was told by his mom Mary Caldwell: "Keep a journal. It will be interesting to look back on."

Star-Bulletin reporter Lois Taylor wrote: "It is not a rehash of 'M*A*S*H' nor 'Miss Saigon' without music. It is a well-told account of a non-combatant's experience in the middle of a deadly and misunderstood war." Peter says, "My focus is on filling the gaps in the landscape of the Vietnam war apart from tense jungle patrols, chaotic firefights and stark combat bases."

(Continued) ➤

CHART Puts People Back to Work



The sooner an injured employee gets back to work, the better for everyone — financially, physically, and emotionally. CHART provides medically-approved outpatient physical rehabilitation that gets employees back to work as soon as possible. Patients actively participate in physical reconditioning and work simulation. Real work tools, materials and equipment help patients restore physical capacity and ease fears of return to work. CHART is a national leader in return-to-work physical rehabilitation that gets proven results. Why wait? It's smart to start with CHART.

CHART®
Comprehensive Health and Active Rehabilitation Training

1505 Dillingham Blvd. #110
Honolulu, HI 96817
Phone: 841-6006

94-810 Moloalo Street
Waipahu, HI 96797
Phone: 671-1711

Refinance Now With a *Choice* of Lenders

The time was never better to refinance your home to obtain a more favorable rate or to get cash for buying in fee or any other need. And remember, we have access to more than one lender so you are assured of getting the best rate. No broker fee. It's included in the points.

CALL NOW. THE TIME WAS NEVER BETTER.

Shim
ANTHONY "BUSTER" SHIM
Mortgage broker
732-0707





The only place on Earth not governed by Murphy's Law.

Meet here and you simply can't go wrong.

Our seasoned Convention Services Manager takes care of everything. All 1,346 rooms have a picture view. Three ballrooms and 11 meeting rooms provide ample space.

You can't beat our catering staff and six restaurants for fine cuisine (which you can work off at our two pools and tennis court). And we're in a perfect spot overlooking Waikiki Beach.

So, you see, if something can go right, it will. That's Hawaiian Regent's Law.

For more information, call 808-921-5184.

hawaiian regent

A New Tradition in Hawaiian Hospitality.
Otaka Hotels and Resorts
2552 Kalakaua Avenue
Honolulu, Hawaii 96815-3699

Next time you feed your face, think about your heart.

Go easy on your heart and start cutting back on foods that are high in saturated fat and cholesterol. The change'll do you good.



American Heart Association
WE'RE FIGHTING FOR YOUR LIFE

NEWS AND NOTES

(Continued from page 75)

Waimea's Hospital

The future North Hawaii Community Hospital in Waimea will cost an estimated $25 million. The 1991 State Legislature appropriated $12.5 million for the project and the local nonprofit organization has to raise the remainder. Sharon Vitousek, president of the board reports that the organization is confident about raising the funds. It has received $4 million in commitments. Construction is to begin in 1993 and will be completed by the end of 1994.

Conference Humor

Third grader Sarah had just attended a special communications class. The parents were concerned and when Sarah did not mention anything, the dad finally asked, "What did you learn?" Sarah shrugged her shoulders and said, "It was no big deal. Lots of talk. Two things we did learn ... "Buy a lot of condominiums and avoid all those intersections." (As told by visiting professor Clifford Melnyte from U of Oregon who lectured on "Acid pump inhibitors" at Mabel Smyth on August 17)

* * *

The recruits for the Irish volunteers were lined up. The sergeant yelled, "All Irish men who are not henpecked take one step forward." Murphy did not move. "Why?" asked the sergeant. "My wife says to stay," replied Murphy.

(As told by VP Coleman Ryan who hails from Ireland)

Conference Notes

OSTEOPOROSIS — Lecture by VP Doris Bartuska, professor of endocrinology from Medical College of Pennsylvania on August 12, 1991.

Osteoporosis is a type of osteopenia. Magnitude of problem: a) 30 million Americans are at risk; b) 1.3 million fractures each year; c) Cost of $9 billion/yr; d) Incidence: greater than diabetes, alcoholism, etc; e) hip fractures: 1 out of 3 women; 1 out of 6 men.

A. Systemic Regulators:
   1. Calcium regulators: parathyroid, calcitonin, 1-25 dihydro D_3
   2. Growth Hormones:
      a. somatotropins
      b. insulin
      c. thyroxins
      d. glucocorticoids
      e. estrogen
      f. androgen
      g. prostaglandins

B. Bone Density:
   1: Ethnic differences
   2. Factors predisposing women:
      a. low estrogen/progestin
      b. diet (low vitamin D, fluoride, calcium intake)
      c. malabsorption of calcium

(Continued on page 79) ➤

COMMITTED TO EXCELLENCE

Roche Laboratories presents the winners of the 1991

ROCHE

PRESIDENT'S ACHIEVEMENT AWARD

Please join us in honoring these outstanding Roche sales representatives who have distinguished themselves by a truly exceptional level of professionalism, performance and dedication to quality health care.

Throughout the year, each of these award-winning individuals has consistently exemplified the Roche Commitment to Excellence, and we're proud to invite you to share in congratulating them on their achievement.



Susan M. Rice

Turn the page to see one of the many ways your award-winning Roche representative can assist you and your patients.

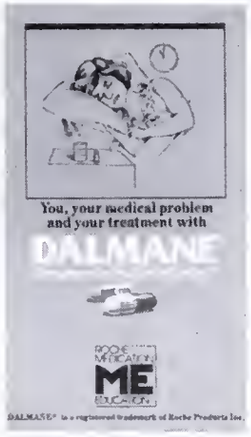
COMMITTED TO TOTAL HEALTH CARE

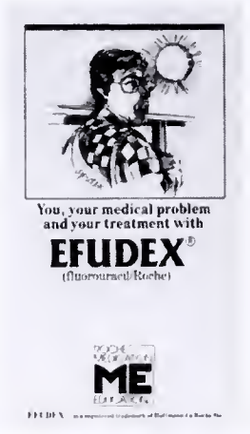
Roche Laboratories presents the Resource Library for patient information

ROCHE ME MEDICATION EDUCATION









Your Roche representative offers you access – without expense or obligation – to a comprehensive library of patient information booklets designed to supplement rather than supplant your rapport with your patients.

Each booklet helps you provide...

- Reinforcement of your instructions
- Enhancement of compliance
- Satisfaction with office visits

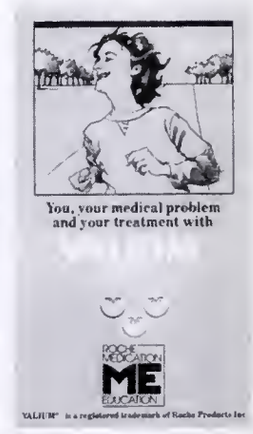
Your Roche representative will be happy to provide a complete catalog of available booklets and complimentary supplies of those that are applicable to your practice.











(Continued from page 76)

d. race (Orientals, Caucasians)
e. aging

C. Early Signs of Osteoporosis:
1. Rising urinary fasting calcium/creatinine ratio
2. High fasting calcium
3. Plasma progestin: Less than 0.5ng/ml
4. High parathyroid hormone
5. Low plasma calcitonin levels
6. Marked loss of height (Remember to check patient's height)

D. How to define patient at risk:
1. Minimum workup:
a. Serum Calcium; alkaline phosphatase; serum protein
b. Electrophoresis
c. 24-hour urine calcium
2. Maximum workup:
Bone Mass Measurements:
a. single photon
b. dual photon
c. DEXA

E. The Cycling Woman
1. Dietary guidelines:
a. adequate Ca intake
•Premenopausal woman: 1,000 mg Ca carbnate
•Postmenopausal woman: 12 to 1500 mg Ca carbonate
•Elderly: Calcium citrate or Ca carbonate
b. Avoid excess fiber, animal protein, phosphates, sugar, salt, caffeine, alcohol
2. Estrogen:
a. First 7 years after menopause most important; continue 10 to 20 years
b. Progestin: if uterus present
c. Schedule: 1 to 25 days: estrogen; last 14 days: progestin
d. Simultaneous estrogen with progestin: less bleeding
e. Greatest potential benefits to: Early menopause, small stature, fair complexion, multiparity
3. Mortality Comparisons

Disease	Deaths/Yr
Endometrial Cancer	3,100
Breast Cancer	26,800
Osteoporosis	50,000

F. Prevention Osteoporosis: Calcium: 1,000 to 1,500mg
Vitamin D Supplement: RDA 400 IU
Weight-bearing exercises
Assess risk factors
Remove aggravating factors

G. Treatment Osteoporosis:
1. Calcitonin: only hormone making new bone in 1991 (Nasal spray available)*
2. Reducing risk factors

(Continued) ➤

SHERATON MAKAHA RESORT AND COUNTRY CLUB



THE KAMAAINA
"WHOLE IN ONE"
$85*
ROOM AND GOLF PACKAGE

Now you can play 18 holes of Oahu's most challenging golf (with a 74 USGA rating) at Sheraton Makaha West Course. Then relax and spend the night in our peaceful, country-club atmosphere. All at a special little "Whole in One" rate.

Just $85 per person, per night, Sundays thru Thursdays. $95 per person, per night on weekends. Play an additional round on the same day at a special rate (space available).

For "Whole in One" reservations call Sheraton Makaha at 695-9511.

* Per person, per night. Based on double occupancy. For a limited time only, subject to space availability. Single golfer rates also available. Rates do not include applicable state taxes. Proof of Hawaii residency required.

Sheraton Makaha
RESORT & COUNTRY CLUB
OAHU
ITT Sheraton

THERE IS SOMETHING YOU CAN DO ABOUT AIDS



Life Foundation
The A.I.D.S. Foundation of Hawaii
924-AIDS

Aloha United Way
It brings out the best in all of us.

Enclosed is my tax deductible donation to help The AIDS Foundation of Hawaii

Name _____
Address _____
_____ Donation $_____

MAIL TO: LIFE FOUNDATION
P.O. Box 88980, Honolulu, HI 96830-8980

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

If your patient's health comes first. Where does your business health come?

For timely news you can use...

PACIFIC BUSINESS NEWS

Every Monday since March 18, 1963

Pacific Business News
P.O. Box 833
Honolulu, Hawaii 96808

Bill
❑ Company
❑ Me

Charge to my
❑ Mastercard ❑ Visa ❑ Discover Card
❑ Payment Enclosed

❑ 1 Year $43
❑ 3 Years $95
(Within Hawaii Only)

Card No. _____ Exp. Date _____

Signature (required for charge order)

Name _____

Title _____

Company Name _____

Type of Business _____

Address _____

City _____ State _____

Zip _____ Phone _____

First Class & Foreign rates on request.
(808) 521-0021

(Continued from page 79)

3. Vitamin D 400 IU
4. Estrogen/progestin
5. Calcium
6. Fluoride: Sodium fluoride is not FDA approved for PMO; GI problems in 25%
7. Anabolic steroids
8. Parathyroid hormone
9. ARFR (Coherence therapy)
10. Oral bisphosphonate (Etidronate) 400 mg: 2 wks on and stop 13 wks (4 times/yr)

*Calcitonin: (human vs salmon) 50 IU 3 times a week — reverses bone loss

H. Other Causes of Osteoporosis:
1. Drugs:
   a. cortisone-like steroids
   b. antacids
   c. some diuretics (HTZ and Lasix are used to treat hyperealeemia)
   d. Seizure meds
   e. Thyroid
2. Endocrine Disorders:
   a. Estrogen deficieney; testosterone deficieney
   b. Cushings
   c. Hyperthyroidism
   d. Hyperparathyroidism
   e. Diabetes
3. Genetic Syndromes
4. Nutritional Deficieney
5. Certain caneers
6. Immobilization and weightlessness (eg astronauts have massive calcium diuresis)
7. Nutrition in children: Sodas loaded with phosphates and no milk diet
8. Others:
   a. Marathon women: amenorrhea
   b. Amenorrhea seeondary to anorexia nervosa

Incidental Intelligence

James Thurber's elassie definition of humor-parodying William Wadsworth: "Humor is emotional chaos remembered in tranquility."

Miscellany

▼ The judge asked the defendant, "Why did you park your ear where you did?" "There was a sign that said, 'Fine for parking,' sir."

▼ Mrs S took her teenage daughter to the clinic for an examination. "Has she ever had intercourse?" asked the doctor. "I don't know what that is, but give her some anyway ... Welfare is paying for it."

▼ The doctor had to leave the office on an emergency. He told his new receptionist, "If the next patient comes, tell him I'll be right baek." Receptionist: "What if he doesn't show up, what shall I say?"

(Anonymous)

■

EXAMINE US CLOSELY

You shouldn't have to play a waiting game with your bank. And you don't, at American Savings Bank.

When we say that medical practices can count on us for timely financing, count on it. Because we know that for small and mid-size businesses, sooner isn't just better, it's critical.



When we say that you can expect personalized attention from our corporate banking people, expect it. So you can focus your attention on your growing practice.

When we say that you can turn to us for competitive rates, we're not just turning a phrase. You'll also find that we can be more creative, more flexible. So you can respond to opportunities more quickly.

Let us help you take your business in the right direction. Call our Corporate Banking Department at 539-7242.

American Savings Bank, your small business experts.

American Savings Bank FSB

An HEI Company

EQUAL HOUSING OPPORTUNITY LENDER

MEMBER FDIC

CLASSIFIED NOTICES

To place a Classified Notice, MEMBERS, please call Association Office at 536-7702. NON-MEMBERS, please call Leilani at 521-0021. 4 line min., approx. 5 words per line. Payment must accompany order.

EMPLOYMENT OPPORTUNITY

POSITIONS AVAILABLE

Physician Placement Hawaii has openings for physicians & other medical professionals all across the U.S. Mainland as well as here in Hawaii. We also have candidates interested in a Hawaii position. Call Earl Pajari at 395-7099.

Looking for confident FP or GP who loves Kihei! Present physician has many years of experience and is willing to share them with an interested candidate willing to learn. Possibility of becoming part of the practice. Office is approximately 1,500 sq. ft. and has newly installed computer equipment. Complete clinic includes one x-ray tech, 2 medical assistants and a business manager. Office hours are 8 a.m. to 6 p.m., Monday through Friday, 8 a.m. to 5 p.m., Saturday, and 9 a.m. to 1 p.m., Sunday and holidays. Call Susie at 879-7447 or 879-1440.

OB/GYN needed for a multi-specialty clinic. Contact: Central Medical Clinic, George Shojinaga, 321 N. Kuakini Street, Suite 201, Honolulu, Hawaii 96817, (808) 523-8611.

Primary care physicians needed on board the USS Constitution and Independence. Minimum 1 week cruise. Call Acute Care Medical Services, 262-4181.

Opening for Internal Medicine/Family Medicine/Primary Care available. Call 262-6403.

OFFICE SPACE

ALA MOANA BUILDING — 680 sq. ft. - two consullation rooms, two exam rooms. Take over lease. Call 946-8396.

AINA HAINA PROFESSIONAL BUILDING — 1064.5 sq. ft. office with spacious waiting room, central reception area and 3 exam rooms. Includes 2 parking stalls with ample patient parking in the shopping center area. Call Carolyn Darrow, 373-9844.

Physicians office space available in Saint Francis Medical Center-West Medical Plaza. Second floor suite. Contact Patrick Norman MD at 676-7600.

SERVICES

CHINESE ACUPUNCTURE CLINIC

Exp. acupuncturist. HI lic. Wants referrals. Car acc., low back, work comp, stop smoking, lose wt.

1155 Maunakea St. 533-2498 LeAnne Chee

LOCUM TENENS PROVIDED

Internal Medicine and Family Practice available. Please contact Acute Care Medical Services. 262-4181.

SERVICES

Available for Locum Tenens is a caring board-certified long-time resident physician. Available days or weeks. Call Mary Glover MD 668-7337.

REAL ESTATE

MANOA

Best street. 4 bd., 3 ba. Divorce forces sale. Gaylyn Li-Ma 530-1266 (pager) 946-0646.

FOR SALE

OB/GYN practice for sale. Aiea. Call 737-3659.

GOLF CLUBS — Great starter set. Men's 3-PW - Tour Model II. Perimeter weighted and cavity back. $125 or best offer. Call Jan - 536-7702.

EXAM TABLE — Heavy duty, oak finish with brown naugahyde, head lifts up, stirrups and set-up tray. Best offer — must see. Call Lois 538-7044.

BENNET X-RAY, KONICA PROCESSOR. Six years old. Excellent for spine and extremity work — table does not tilt. Overhead mount. Offer. 942-3533.

WAIPAHU established general practice for sale. Terms negotiable. Call 671-3931.

DOWNTOWN BISHOP STREET — Fully equipped Dermatology office for sale by arrangement. Call 528-1717.

Joint East and West Hawaii County Medical Societies Meeting

March 28-29, 1992
Kona Surf Hotel
Scientific Session
Diabetes Mellitus

Call Lloyd Minaai MD at 969-1141 for details and for Kona Surf Resort registration form; rooms from $55-$70/night.

4-6 CME credits offered.

Maka O Ka Kauka

Russell T. Stodd MD

The pretenders are coming! The pretenders are coming!

The nurses of Hawaii think that they should be allowed to prescribe drugs. The psychologists want hospital and prescription privileges. The naturopaths want to perform surgery, and now the optometrists want to have therapeutic prescription privileges. Senator Mazie Hirono (attorney at law) has introduced legislation on behalf of the optometrists. This brings up the question — *Why bother with medical school?*

There is no sin except stupidity.

"If this type of thinking were to prevail, the status quo would be frozen and research and development would become a thing of the past. That is not the American way. This court simply cannot understand why HCFA wants to stifle the kind of program that will keep this nation as the leading proponent of private sector innovation." **Judge Stanley Sporkin** in supporting the ASCRS suit challenging HCFA's refusal to fund investigational IOLs.

Concerning the difference between man and the jackass: Some observers hold that there isn't any. But this wrongs the jackass.

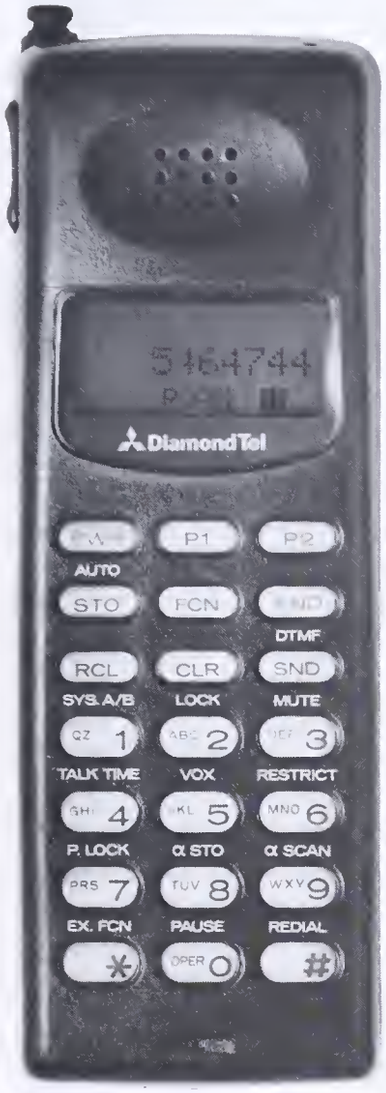
Meanwhile, back at the PPO drawing board, the Alternative Cataract Surgery Payment Demonstration is not meeting the timetable. Originally scheduled to begin January 1, the plan has been frustrated by the withdrawal of the Albany/Troy portion (lack of interest), and by a paucity of applicants in Dallas and Cleveland. HCFA has had only 6 applications from Cleveland, and 9 from Dallas/Ft Worth. Additionally, the American Society of Anesthesiologists has joined the AAO and the Cleveland Ophthalmological Society lawsuit to halt the project, making it more difficult for HCFA's legal staff.

Aloha, and keep the faith.

rts



Wristwatch Pager



Diamond Tel 99X Compact Cellular Phone
Actual Size: 6.3"x 2.2"x .93"



Sensar Digital Pager



BPR 2000 Digital Pager



Bravo Digital Pager



Bravo Tone Pager



Diamond Tel 95 Transportable Cellular Phone

Hit The Road, Jack.

You don't have to be out of touch no more no more no more.

Because GTE Hawaiian Tel has an exceptional line of cellular phones and pagers that are made for people on the go.

GTE Hawaiian Tel offers solid warranties backed by a comprehensive service network. What's more, you can take advantage of our lease options and flexible rate plans.

Our cellular service features the combined expertise of GTE Hawaiian Tel and GTE Mobilnet, providing you with the best in statewide and national cellular services.

So before you go anywhere else, call GTE Hawaiian Tel at 643-4744. And get the show on the road.

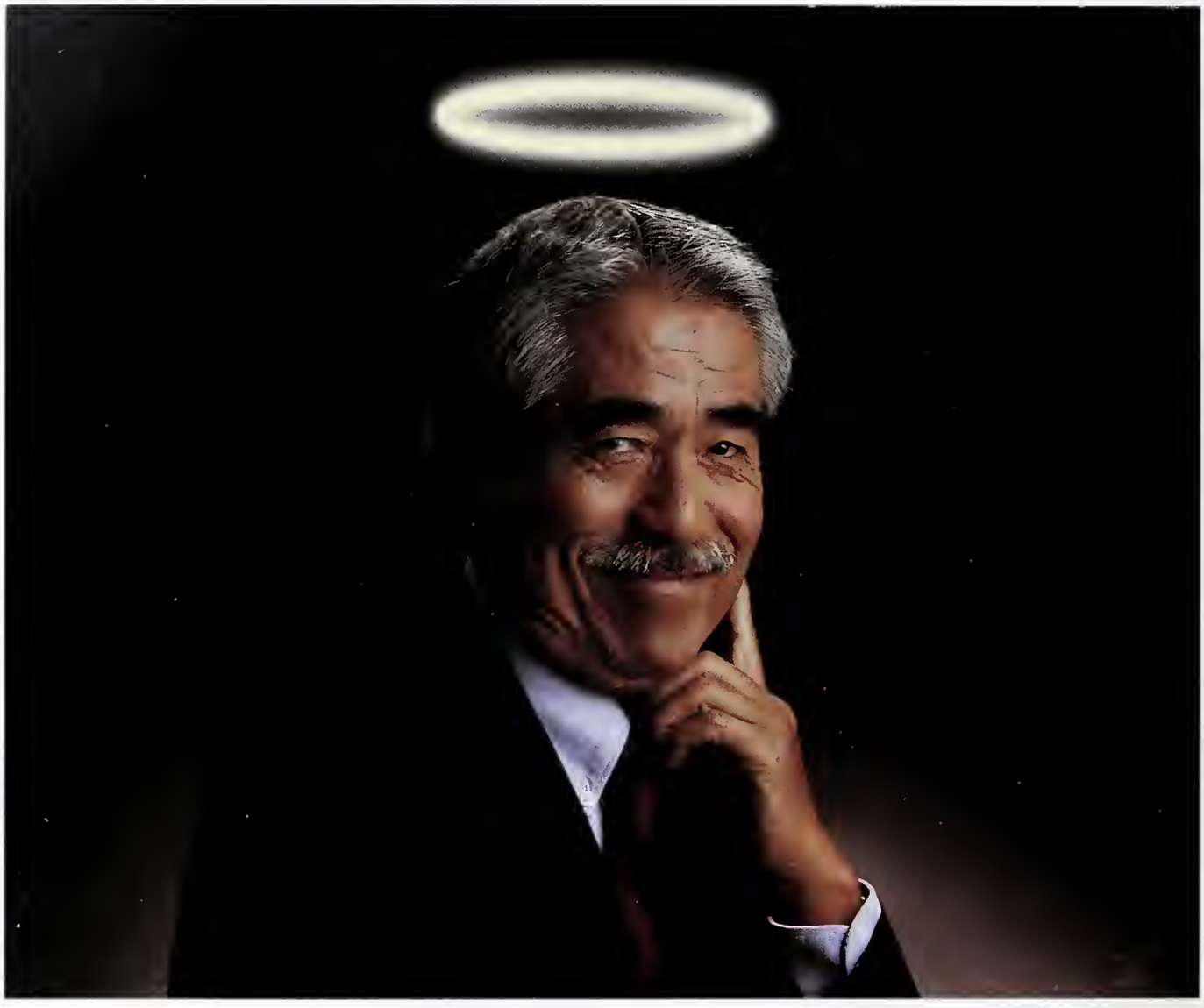
GTE Hawaiian Tel

Beyond the call

GTE Mobilnet
Authorized Agent
- Premier cellular carrier
- Statewide Cellular℠ coverage
- InterIsland Roaming℠ service

Ask for more details.

THE SMARTEST THING YOU CAN DO WITH YOUR MONEY MAY BE TO GIVE IT AWAY.



Yes, it's possible to do well by doing good.

In fact, it's a very savvy idea when you face that last great barrier to retirement: a mountain of capital gains taxes on the sale of your home, business or investments.

Because putting your assets in a Charitable Remainder Trust saves you not only all those capital gains taxes, but substantial income taxes as well. It could boost your investment income dramatically. And, after your death, it steers your estate to the charity of your choice–not to the taxman.

Through the Charitable Remainder Trust, you may even be able to pass a similar amount to your heirs, tax free.

Asset Management Services

If you have more than $300,000 in assets, we invite you to call our Trust Services people in Honolulu at 525-7134. Or call collect from the neighbor islands.

Because while it may be more blessed to give than to receive, it's even better to do both.

First Hawaiian Bank
The Answer is Yes.

APRIL 1992
VOL. 51, No. 4
ISSN: 0017-8594

Journals
W1
HA
968

Hawaii Medical Journal
UCSF LIBRARY
Received on: 05-01-92

Hawaii Medical Journal

CONTENTS

HMA COUNCIL HIGHLIGHTS 88

EDITORIAL 90
Ciguatera, once again
J I Frederick Reppun MD

CIGUATERA: A REVIEW 91
James H Gollop MD MPH
Eugene W Pon MD MPH

PROVIDING HEALTH CARE TO HAWAII'S ELDERLY 100
Cullen T Hayashida PhD
Warren Wong MD

POEM: THESE GLORIOUS GOLDEN YEARS! 104
Lillian Schwartz
Kukui O Pohai Nani

NEWS AND NOTES 105
Henry N Yokoyama MD

MAKA O KA KAUKA 112
Russell T Stodd MD

U OF CALIFORNIA-SF
LIBRARY
SERIALS DEPT, BOX 0840
530 PARNASSUS AVE
SAN FRAN, CA 94143-0840

HAWAII MEDICAL ASSOCIATION 1856

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively
Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

Hawaii Medical Journal

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS

Editor: J I FREDERICK REPPUN, MD
Founding Editor: HARRY L ARNOLD JR, MD
News Editor: HENRY N YOKOYAMA, MD
Contributing Editors: STEPHEN RPK BRADY, MD, FRANCIS H FUKUNAGA, MD,
Editorial Assistant: DAISY CANITE
Publisher: STEPHEN S LENT

Editorial Board
NORMAN GOLDSTEIN, MD,
ROBERT TS JIM, MD
JAMES LUMENG, MD
FRANCIS D PIEN, MD

Publications Committee: MYRON E SHIRASU, MD (Commissioner)
HENRY N YOKOYAMA, MD (Chairman)
ERLAINE BELLO, MD
STEPHEN RPK BRADY, MD,
NADINE BRUCE, MD
NATHANIEL PH CHING, MD,
RICHARD CHUNG, MD
ALVIN FURUIKE, MD,
FRED GILBERT, JR, MD
ROBERT HOLLISON, MD
AMOD JAIN, MD
ROBERT JIM, MD,
JAMES LUMENG, MD
BAL RAJ MEHTA, MD
FRANCIS PIEN, MD,
J I FREDERICK REPPUN, MD,
KIM THORBURN, MD
TERRY CY WONG, MD
GWEN FU (HMA Auxiliary)

OFFICERS

President: STEPHEN J WALLACH, MD
President-Elect: JEANETTE HJ CHANG, MD
Past President: JOHN T MCDONNELL, MD
Secretary: ANDREW DON, MD
Treasurer: JOHN S SPANGLER, MD

County Presidents
Hawaii: RICHARD KM LEE-CHING, MD
Honolulu: CALVIN YH WONG, MD
Kauai: LARRY MAGNUSSEN, MD
Maui: LEONARD H SAKAI, MD
West Hawaii: MINOLU R CHENG, MD

Delegates to AMA
CALVIN CM KAM, MD
RUSSELL T STODD, MD
Alternate Delegates to AMA
STEPHEN J WALLACH, MD
JOHN T MCDONNELL, MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237-640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Non-member subscriptions are $18. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Printed in U.S.A.

The Backworks Difference...



"Self-Management"

Learning to use pain as biofeedback in selecting appropriate posture and movement.



BACKWORKS HAWAII Inc.

456-7077
945 Kamehameha Hwy.
Pearl City, Hawaii 96782

Active, Progressive Physical/Occupational Therapy

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

Highlights of the HMA Council Meeting of March 3, 1992

The HMA Council met on 3 March 1992. The highlights of its action follow. Those present were: S Wallach, J Chang, A Don, J Spangler, J McDonnell, C Kam, R Stodd, F Holschuh, L Sakai, R Lee-Ching, M Cheng, L Magnussen, P DeMare, R Adaniya, P Blanchette, R Embry, R Kimura, HKW Chinn, M Shirasu, W Young, C Kadooka, R Goodale, J Betwee, H Percy, T Smith, G Goto, J Lumeng, WWY Chang and A Kunimoto. Also present were: Mrs S Magnussen-Aux; F Reppun-Editor, HMJ; V Woo-Legal Counsel; B Fong-Med Director, Aetna-Medicare; and G Starbuck-Chair, HMA Bodybuilding Committee. HMA staff present were: J Won, N Jones, B Kendro, J Asato, J Estioko, L Tong, P Kawamoto, K Hamada, and M Lindsey-recording secretary.

The Council approved assisting and developing a survey in conjunction with Straub Clinic to study Hawaii preventive services by primary care physicians in comparison to the *Guide To Clinical Preventive Services* prepared by the U.S. Preventive Services Task Force.

The Council opposes legislative Bill HB 2814, HD2 Relating to the Regulation of Nursing, for the following reasons:

1. The bill jeopardizes patient safety;
2. under the proposed definition of "collaboration", nurses agree the input of the physician is advisory only and they do not have to follow the physician's recommendations;
3. most states which allow prescriptive authority to nurses in advanced practice do so in a dependent relationship with the physician;
4. it proposes to limit practice to an institutional setting which will include hospitals, health centers, physician offices and group practices, all employee health clinics and only in "collaboration" with a physician;
5. in addition, both the Drug Enforcement Agency (DEA) and the Department of Health (DoH) have stated their opposition to this Bill.

Approval was given by Council for a promotional mailing to HMA members by Conomikes Medicare Hotline regarding the latest update on Medicare regulations as well as "how to deal" with breadbasket issues.

The Publications Committee recommendation to increase the *Journal* subscription rate to $18 for members and $25 for nonmembers was referred to the next Finance Committee 1993 budget session. A resolution will be submitted to the 1992 House of Delegates.

The HMA approved a brochure by the DoH regarding the risks of Anabolic Steroids to be distributed to the general public.

HMA will co-sponsor the "Friends, Fitness and Fun Fair" sponsored by the Friends of the Medical School and John A Burns School of Medicine by typesetting and providing camera-ready artwork for its flyers.

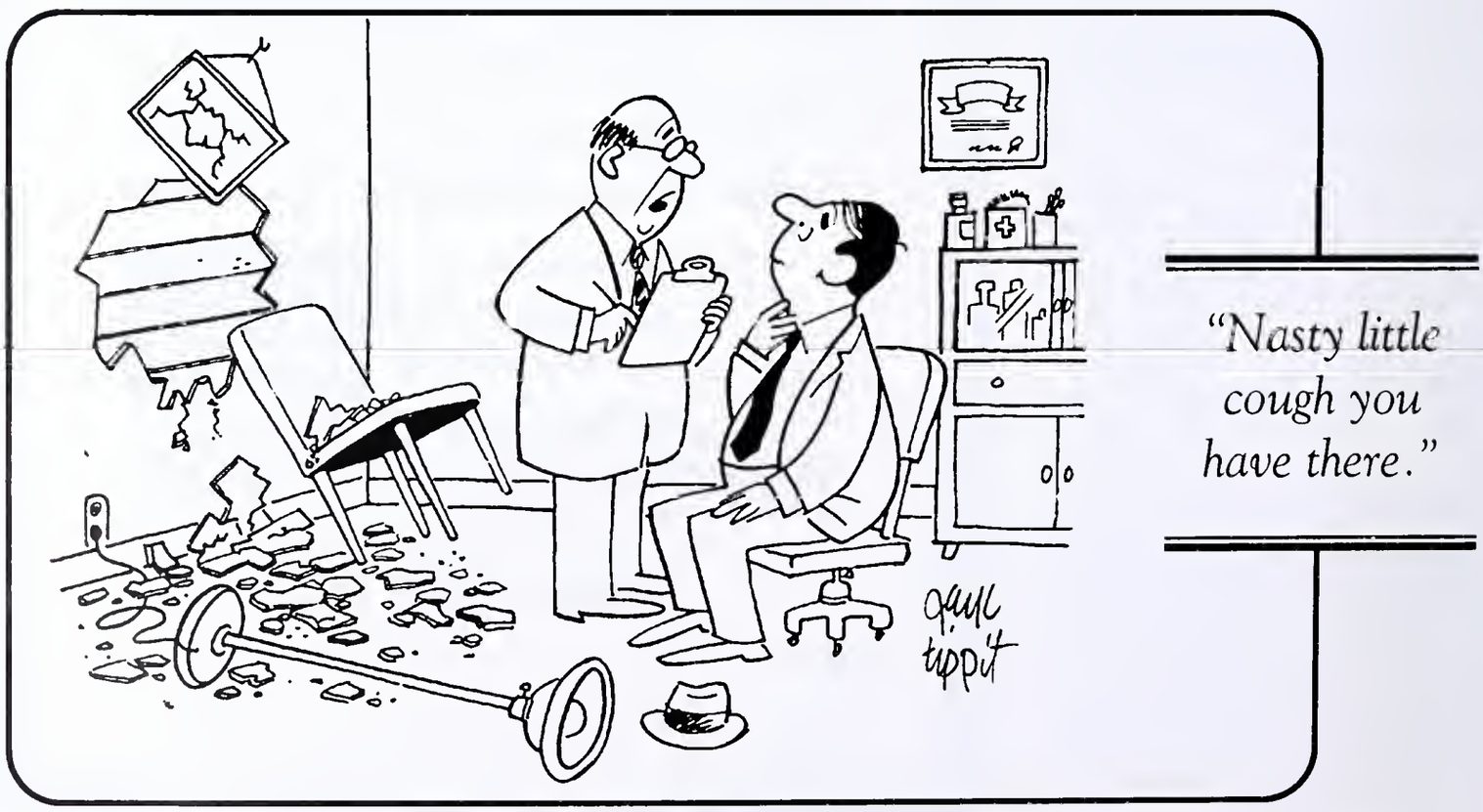
The recent malpractice workshops by MIEC, sponsored by HMA, received overwhelming turnouts in Oahu as well as on the Neighbor Islands.

HMA members will receive easy-to-read posters of Medicare Codes to assist office billings.

SMS Research recently conducted a smoking survey statewide which was supported by HMA. It showed there is increased support for restrictions on smoking and protection for nonsmokers.

HMA and Aloha Medical Mission are actively recruiting volunteer physicians to provide needed medical care to the Maililand Community for homeless families. To volunteer, please call Jan Estioko at HMA, 536-7702 or Aloha Medical Mission at 536-1588.

Andrew Don MD
Secretary



For the many faces of mild hypertension

MILD



THE MOST WIDELY USED CALCIUM ANTAGONIST AS MONOTHERAPY FOR MILD HYPERTENSION[1]*

- Effective 24-hour control[2]
- Single-agent efficacy
- Well tolerated†
- No adverse effects on total cholesterol, plasma glucose levels, renal function,‡ or serum electrolytes[3-6]

ONCE-DAILY

Calan® SR

verapamil HCl

180 mg

SUSTAINED-RELEASE CAPLETS 240 mg

For the many faces of mild hypertension

*The recommended starting dose for Calan SR is 180 mg once daily. Dose titration will be required in some patients to achieve blood pressure control. A lower initial starting dosage of 120 mg/day may be warranted in some patients (eg, the elderly, patients of small stature). Dosages above 240 mg daily should be administered in divided doses. Calan SR should be administered with food.

†Constipation, which is easily managed in most patients, is the most commonly reported side effect of Calan SR.

‡Verapamil should be administered cautiously to patients with impaired renal function.

References: 1. Data on file, Searle. 2. Edmonds D, Würth JP, Baumgart P, et al. Twenty-four-hour monitoring of blood pressure during calcium antagonist therapy. In: Fleckenstein A, Laragh SH, eds. *Hypertension—the Next Decade: Verapamil in Focus.* New York, NY: Churchill Livingstone; 1987:94-100. 3. Midtbø KA. Effects of long-term verapamil therapy on serum lipids and other metabolic parameters. *Am J Cardiol.* 1990;66:13I-15I. 4. Fagher B, Henningsen N, Hulthén L, et al. Antihypertensive and renal effects of enalapril and slow-release verapamil in essential hypertension. *Eur J Clin Pharmacol.* 1990;39(suppl 1):S41-S43. 5. Schmieder RE, Messerli FH, Garavaglia GE, et al. Cardiovascular effects of verapamil in patients with essential hypertension. *Circulation.* 1987;7S:1030-1036. 6. Midtbø K, Lauve O, Hals O. No metabolic side effects of long-term treatment with verapamil in hypertension. *Angiology.* 1988;39:102S-1029.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol and propranolol clearance may occur when either drug is administered concomitantly with verapamil. A variable effect has been seen with combined use of atenolol. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Verapamil may inhibit the clearance and increase the plasma levels of theophylline. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. There was no evidence of a carcinogenic potential of verapamil administered to rats for 2 years. A study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes, reversible non-obstructive paralytic ileus. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, galactorrhea/hyperprolactinemia, increased urination, spotty menstruation, impotence.

4/11/91 • P91CA6277V

Address medical inquiries to:
G.D. Searle & Co.
Medical & Scientific Information Department
4901 Searle Parkway
Skokie, IL 60077

© 1992 Searle

A92CA6S06T

SEARLE

G.D. Searle & Co.
Box 5110, Chicago, IL 60680

Editorials

Ciguatera, once again

Ciguatera, a form of ichthyosarcotoxism, a term originating in the West Indies, is the name of a disease caused by the ingestion of Ciguatoxin; it is a poisoning of humans who eat certain fish. To call the disease Ciguatera fish poisoning is redundant.

Ciguatera has swum into the pages of the *Journal* on numerous occasions in the past: by Helfrich P in 1963, Bagnis R in 1968, Sorokin M in 1975, Anderson, Sims and Wiebenga in 1983 and in an editorial in 1988 that referred to the research by Dr Tilman Ruff of Australia on the marked rise in its incidence in the Pacific Ocean areas the result of the French nuclear weapons testing in Moruroa in the Tuamoto archipelago.

The entity has generated attention from the news media of late as a consequence of an increase in the number of cases occurring in the Islands. In particular, Paul Effler MD, Preventive Medicine Resident with the State Department of Health, writing in the *Communicable Disease Report* of February/ March 1991, reported 35 cases of Ciguatera within a 2-week period in February.

In this issue of the *Journal*, we publish a rather comprehensive review of Ciguatera that was submitted to us quite some time ago (we apologize for the long lead time) by James H Gollop MD MPH and by Eugene Pon MD MPH, Chief of the Epidemiology Branch.

In view of the DoH report that 14 of the 35 recent cases had to be hospitalized and 11 of those to intensive care units, it warrants publishing an article on the subject once again, to alert practicing physicians to the seriousness of this toxicity.

We endorse the publicity in the news media that alerts the eaters of Po'ou, Ulua, Papio, Palani and other littoral fishes, to be constantly aware and knowledgeable about the dangers of Ciguatera.

J I Frederick Reppun MD
Editor



FLIGHT SURGEONS WANTED.

Discover the thrill of flying, the end of paperwork and the enjoyment of a general practice as an Air Force flight surgeon. Take flight with today's Air Force and discover quality benefits, 30 days of vacation with pay each year and the support of a dedicated staff of professionals. Enjoy a true general practice on the ground, with the kind of stimulating challenge that will get your medical skills airborne. Talk to an Air Force medical program manager about becoming an Air Force flight surgeon. Call

USAF HEALTH PROFESSIONS
TOLL FREE
1-800-423-USAF

AIR FORCE

Ciguatera: A review

James H Gollop MD MPH*
Eugene W Pon MD MPH**

Hawaii State Department of Health epidemiological records were reviewed for cases of ciguatera poisoning for the entire state, from January 1984 through December 1988. During the 5 year interval, the numbers of ciguatera poisoning incidents, number of cases, and date of onset were recorded, as well as age and sex of individuals involved. The place of catch of each fish was noted as well as whether or not the fish was obtained commercially. The parts of the fish consumed were also recorded.

A total of 150 ciguatera incidents occurred during this period, involving 462 individuals for an average annual incidence rate of 8.7/100,000 population. The 3 most frequently implicated species of fish were the Carangoides species (jack or papio or ulua), Ctenochaetus strigosus (surgeon fish or kole), and Aphareus furcatus (fork-tailed snapper or waha nui); however, more than 50 species of fish had caused one or more outbreaks. The most frequently implicated areas of the toxic fish were the Kona coast as well as the South Point of the island of Hawaii, and the Napali coast of the island of Kauai. Of the 150 outbreaks, 32 (21%) were related to commercial fish. The rest were related to sportfishing.

Introduction and history

Ciguatera fish poisoning is a disease which results from the ingestion of reef fish. For many years it was primarily a concern of those residing in the tropics or subtropics. However, it is becoming increasingly significant for fish-eaters in temperate areas of the world as well, as fish has become more popular and quick air delivery of fresh fish is a reality[1-6]. Ciguatera fish poisoning is generally thought to be caused by a polyether toxin, usually ciguatoxin (CTX). It is likely however, that the symptom complex we describe as ciguatera, may actually be a result of the consumption of other polyether toxins, such as palytoxin, scaritoxin, maitotoxin and other as of yet unidentified toxins[7].

Ciguatera is not a new disease. The term was coined during the 18th century, when it was noted that a symptom complex would sometimes develop following the ingestion of a marine snail, *Turbo pica,* also commonly known as "cigua"[15]. There were reports of illness due to the consumption of fish noted by the Egyptians during ancient times[12]. There is also evidence to suggest that there were cases of ciguatera poisoning during the voyages of Captain Bligh and Captain James Cook[16,17].

The illness has been extending to new areas however, partly due to modern transportation, that allows fresh fish to be sold in inland areas, and also because of ecological changes that may be contributing to ciguatera endemicity in certain areas of the Pacific. The mechanism of these ecological changes is not well elucidated at this point, but it has been frequently noted that ciguatoxic fish will often increase, or suddenly appear in previously unaffected areas, following an upset in the benthic environment, as may occur during coastal construction projects or dredging, or underwater nuclear bomb testing[13,18].

The primary endemic areas, however, are still the tropical and subtropical coastal regions of the world, particularly in the South Pacific islands and the Caribbean[19,20]. In the United States, most cases occur in Hawaii and in Southeastern Florida, although cases have been reported from Texas, California and occasionally the inland states as the result of importing fish from endemic areas[1-6,12,13,21].

Pathogenesis

It has been determined that ciguatoxin is produced by a photosynthetic benthic dinoflagellate *Gambierdiscus toxicus,* which lives in the coral reef environment[8]. Herbivorous fish consume the organism in algae that contain the toxin and concentrate the CTX in their internal organs and flesh. These fish may then be consumed by larger carnivorous fish, which in turn concentrate the toxin to a greater extent. Thus, the toxin passes up the food chain to the human consumer. The presence of toxic fish tends to be sporadic and unpredictable, making it impossible without the use of scientific testing to determine whether or not a fish caught from a specific area, at a specific time, may be safe to eat.

Individual susceptibility to the toxin varies considerably. A given amount of fish, when consumed by one person may cause illness, whereas another person may remain well. It has been demonstrated that susceptibility to the toxin may increase after a previous exposure, and people who have suffered from ciguatera in the past may actually become more susceptible to the disease[9,10]. Even in the absence of symptoms

(Continued) ➤

For correspondence about the manuscript and request:
James H Gollop MD MPH
State of Hawaii Department of Health Tuberculosis Branch
1700 Lanakila Avenue, Honolulu, HI 96813
(808) 847-6542

* Preventive Medicine Resident
Hawaii State Department of Health,
Communicable Disease Division, Epidemiology Branch,
Honolulu, Hawaii.

** Branch Chief
Hawaii State Department of Health
Communicable Disease Division, Epidemiology Branch
Honolulu, Hawaii.

Received for publication September 13, 1989.

at first exposure, those with frequent intake of ciguatoxic fish are more likely to become ill. This may be a matter of accumulation of CTX in the host, or possibly an immunologic reaction.

It is interesting to note that individuals suffering from ciguatera will often have symptoms after eating *any* seafood, and often nuts, nut oils and alcoholic beverages as well. The mechanism behind this phenomenon is as yet unknown, but it is recommended that individuals suffering from ciguatera follow a diet avoiding such products[11].

The toxin involved in ciguatera is odorless and tasteless. There is no ordinary means of detecting the presence of the toxin other than by scientific testing. The toxin is heat-stable, and is not destroyed by boiling, steaming, baking, smoking, salting, pickling or freezing[12,13,14].

The mechanism whereby the polyether toxins affect a human has not yet been elucidated. Originally it was thought to exert its effect by an anticholinesterase activity, but later it was found to have a more complex mechanism of action which has yet to be determined[22].

Clinical manifestations

The toxin primarily affects the gastrointestinal tract and the nervous system. Within about 4 to 10 hours after ingestion of a toxic fish, the individual typically develops gastrointestinal symptoms: Nausea, vomiting, diarrhea and abdominal cramps, often associated with a feeling of profound weakness and dysphoria. Muscle aches, joint pains, diaphoresis and chills may be present at this time as well. The gastrointestinal symptoms resolve after the first 12 hours of the illness[10,12,13,15,20,21].

Typically it is the neurologic symptoms that cause the prolonged discomfort in the disease. These neurologic symptoms generally begin at about the time the gastrointestinal complaints are resolving, and consist of dysesthesias and paresthesias particularly involving the perioral region and the distal extremities. Classically, one may experience the "temperature reversal phenomenon" whereas cold objects give a warm sensation and touching warm objects results in a cold sensation. Often on drinking cold beverages, the person will describe a feeling of tingling of the tongue; cold beverages may feel hot, and vice-versa. The feeling of paresthesias is usually quite distressing; it may be described by some as a painful burning sensation. Pruritus typically develops as well, about one day after the onset of the initial gastrointestinal complaints. Symptoms usually last about one week, although may persist for months and be exacerbated by the consumption of other food products, as described above.

Ciguatera is generally a self-limiting disease, but death may occur as a result of cardiac dysrhythmias, hypotension, shock or cerebral edema. The case-fatality rate varies from 0.1% to 1%, depending on the geographic location[7,11,12,13].

Treatment

There is no specific treatment nor antidote for ciguatera. Treatment is generally symptomatic and consists of the administration of analgesics and specific drugs to treat the complications described above, should they develop.

Mannitol, a commonly used diuretic, has been shown to

WHEN EXPERIENCE COUNTS, COUNT ON HAWAIIAN TAX-FREE TRUST.

Yes, Hawaiian Tax-Free Trust is an investment you can count on. As the first and largest fund in the Islands investing in municipal bonds, the Trust offers one of the few remaining ways to earn tax-free income together with a high level of safety.

Moreover, as a resident of Hawaii your income from the Trust is free of ***both*** Federal and State of Hawaii income taxes.*

Best of all, you get experienced, locally-based investment management by Hawaiian Trust Co., Ltd.— people you know and can count on.

DOUBLE TAX-FREE INCOME

You'll also enjoy:

- ❑ a high-grade, widely diversified portfolio
- ❑ monthly dividends** by check, or reinvested for you ***without*** sales charge
- ❑ ready liquidity**
- ❑ high current return
- ❑ low initial investment - $1,000

Aquila Distributors, Inc.
820 Mililani Street, Suite 400, Honolulu, Hawaii 96813

❑ ***YES***, tell me more about how I can earn high monthly income and pay no Federal and State income taxes with the Hawaiian Tax-Free Trust. Please send a free prospectus containing more complete information, including all fees and expenses. I will read it carefully before I invest or send money.

Please print clearly

Name:_____

Address:_____

City:_____ State:_____ Zip:_____

Home Phone: (_____) _____

Business Phone: (_____) _____ HMJ

Make an investment that you and Hawaii can count on. For details, talk to your broker. Or call the Trust toll-free today.

1-800-228-4227

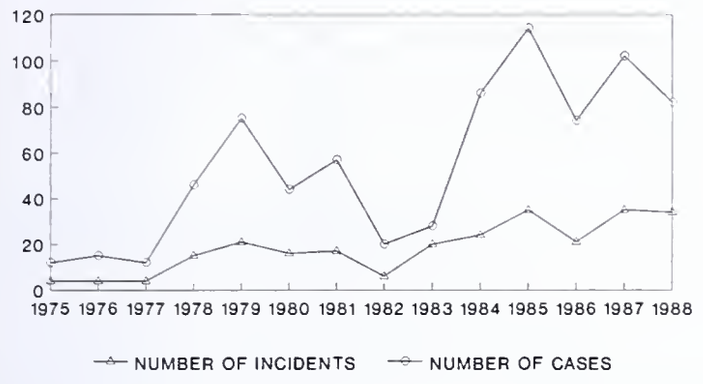
HAWAIIAN TAX-FREE TRUST



* Under some circumstances, a small portion of income may be subject to tax for certain investors. ** Share value and dividend rates are not fixed and vary with interest rate fluctuations. Redemptions are at the current net asset value which may be more or less than cost.

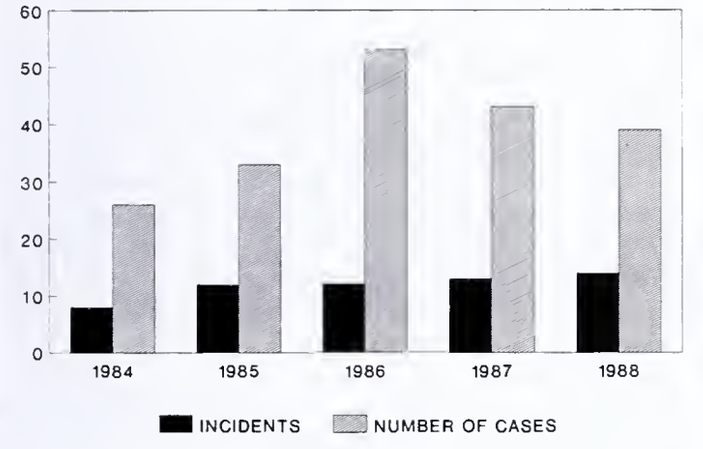
© 1992 Aquila Distributors, Inc.

FIGURE 1:
ANNUAL INCIDENCE OF CIGUATERA
STATE OF HAWAII, 1975 - 1988



SOURCE: HAWAII STATE DEPARTMENT OF HEALTH

FIGURE 2:
CIGUATERA INCIDENTS
ISLAND OF HAWAII, 1984 - 1988



SOURCE: HAWAII STATE DEPARTMENT OF HEALTH

TABLE 1:
ANNUAL INCIDENCE OF CIGUATERA
PER 100,000 POPULATION
BY ISLAND AND YEAR: 1984 - 1988

YEAR	POPULATION	NO. CASES	ANNUAL INCIDENCE PER 100,000 POPULATION
OAHU			
1984	802,351	38	4.7
1985	812,784	29	3.6
1986	818,487	13	1.6
1987	830,597	40	4.8
1988	838,194 est.	27	3.2
KAUAI			
1984	44,167	17	38.5
1985	44,679	47	105.0
1986	46,440	8	17.2
1987	47,600	12	25.2
1988	47,700 est.	6	12.5
MAUI			
1984	74,750	5	6.7
1985	76,462	5	6.5
1986	78,790	0	0
1987	81,100	11	13.6
1988	90,300 est.	10	11.1
HAWAII			
1984	107,169	26	25.2
1985	108,910	33	30.3
1986	112,039	53	47.3
1987	114,434	43	37.6
1988	115,200 est.	39	33.9
STATE			
1984	1,037,206	86	8.3
1985	1,051,481	114	10.8
1986	1,064,732	74	7.0
1987	1,082,500	106	9.8
1988	1,091,394 est.	83	7.5
	TOTAL	462	AVERAGE 8.7

reduce remarkably the intensity and duration of symptoms of ciguatera in a number of patients[23]. As of yet, formal clinical trials using the drug have not been done; the mechanism of action of mannitol is unknown. It may be consequent to diuresis with subsequent rehydration that flushes out the ciguatoxin. It may be a matter of the effects of mannitol on the sodium and potassium channels in the cell membrane. Less likely is the possibility of some type of direct chemical detoxification by the action of mannitol.

It is also recommended that the patient suffering from ciguatera be placed on a "ciguatera diet" which involves avoidance of *all* seafood (even including those which are not usually contaminated with ciguatoxin, such as shellfish), as well as nuts, nut oils, sesame oil and alcoholic beverages until symptoms have completely subsided, in order to prevent the worsening or prolonging of symptoms[11].

Epidemiology

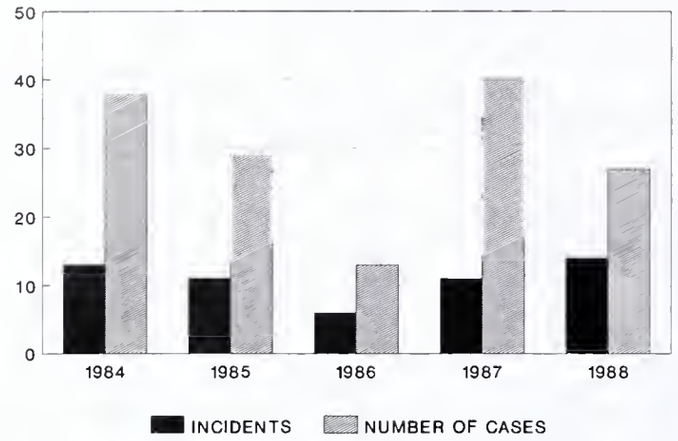
Epidemiological studies have been carried out in the South Pacific and Caribbean ocean areas in order to determine the incidence in these endemic areas. Annual incidence rates varied during the interval 1979 to 1983 from one case per 100,000 people in the Solomon Islands to 1,338 per 100,000 people in Tokelau[19]. Other high incidence areas with rates calculated for the same interval were: French Polynesia with 585 cases per 100,000; Kiribati, with 462 cases per 100,000; and Tuvalu, 484 cases per 100,000[19]. During the years 1982 to 1987 the Marshall Islands had 234.9 cases per 1000 population[18]. A study from St. Thomas, U.S. Virgin Islands, revealed an incidence rate of 36.5 cases per 1,000 population in 5 years[9].

In the Virgin Islands, the most commonly implicated species of fish was the *Caranx ruber* (Carrang). In the South Pacific, in addition to the *Carangidae* (Jacks), *Lycodontis javanicus* (Moray eel) and *Lutjanidae* (snappers) were also highly suspect as the source of ciguatera[25]. In Fiji, the most commonly implicated species was *Sphyraena barracuda* (Barracuda)[24].

A previous epidemiologic investigation of ciguatera in the

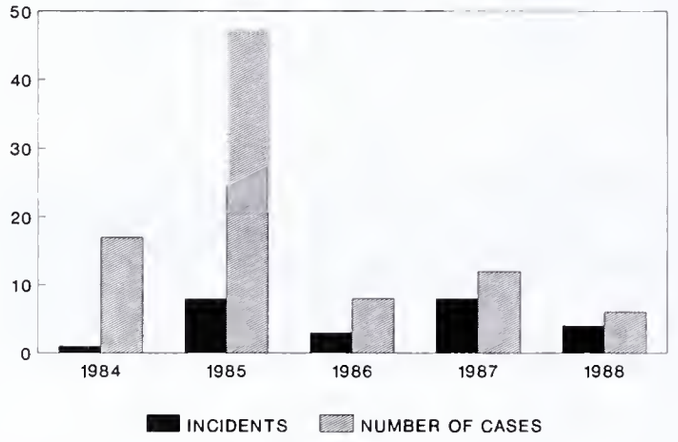
(Continued) ➤

FIGURE 3:
CIGUATERA INCIDENTS
ISLAND OF OAHU, 1984 - 1988



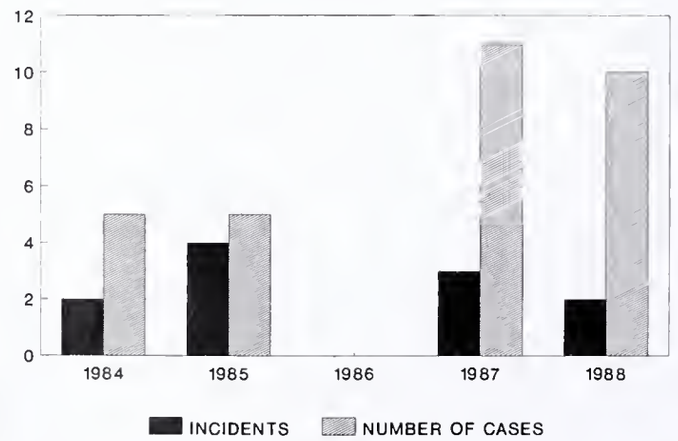
SOURCE: HAWAII STATE DEPARTMENT OF HEALTH

FIGURE 4:
CIGUATERA INCIDENTS
ISLAND OF KAUAI, 1984 - 1988



SOURCE: HAWAII STATE DEPARTMENT OF HEALTH

FIGURE 4:
CIGUATERA INCIDENTS
ISLAND OF MAUI, 1984 - 1988



SOURCE: HAWAII STATE DEPARTMENT OF HEALTH

Hawaiian Islands from 1975 to 1981 revealed an average incidence rate of 1.3/100,000 population. Again, the *Carangoides* species (Jacks or Ulua and Papio) was the most frequently implicated, followed by *Seriola dumerilii* (Amberjack or Kahala), and *Cheilinus rhodochrous* (Wrasse or Po'ou). Other implicated fish included the *Mulloidichtys samoensis* (Goatfish or Weke), *Scaridae* species (Parrotfish or Uhu), *Mugil cephalus* (Mullet or Amaama), *Epinephelus guernus* (Grouper or Hapuupuu) and *Acanthurus dussumieri* (Surgeonfish or Palani)[13].

The Hawaii State Department of Health (DoH) investigates each suspected case of ciguatera that is reported. Every ciguatera investigation involves an environmental, epidemiological and laboratory examination. The epidemiological investigation consists of determining the basic demographics of the cases: The timing and location of the outbreak; determining the parts of the fish eaten; the extent of symptoms; whether hospitalized; the number of work days missed and the duration of illness. This information is usually obtained by interviewing the patients and often their physicians as well.

The laboratory investigation includes the collection of any leftover fish samples and testing them with an ELISA test to determine semi-quantitatively the amount of polyether toxin present in the fish. This is done by a stick-test developed at the University of Hawaii[26].

The environmental investigation involves determining the place where the fish was caught or purchased; often means making a site-visit to the market or restaurant where the fish was obtained. Companion samples of fish from the same catch may also have to be tested. The merchant is advised not to sell any fish of the same species from the same catch, nor remaining parts of the same fish. The place of catch and the species of the fish is recorded (if available) and the involved merchants are given information about ciguatera and other types of fish poisoning.

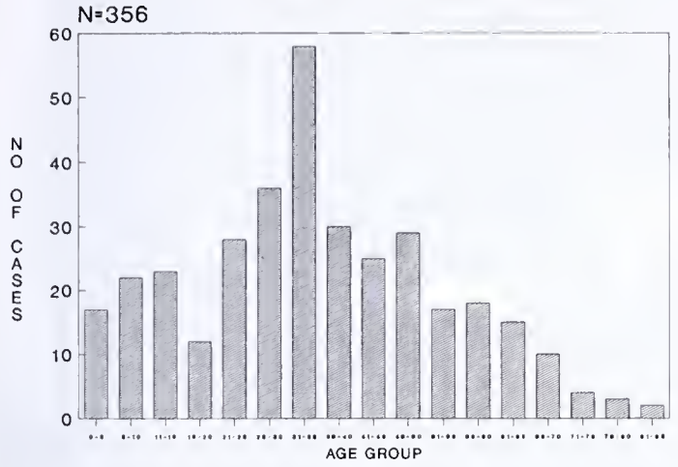
Materials and methods

DoH records of all reported ciguatera incidents were reviewed for the 5-year period 1984 to 1988. All probable or confirmed incidents were included in the investigation. Cases that occurred as the result of eating fish that were caught outside of the State were included.

A "probable" case was defined as "experiencing both gastrointestinal and paraesthetic symptoms within 30 hours following the consumption of a fish implicated in ciguatera". A confirmed case was defined as "a person with signs and symptoms compatible with ciguatera plus a positive poke-stick test of leftover fish eaten by that person." The term "incident" was used as opposed to "outbreak"; an outbreak generally refers to more than one person being ill, whereas an incident may refer to a single case. A person epidemiologically linked to an incident with a confirmed case and exhibiting at least some components of the gastrointestinal or neurological symptoms also was considered as a confirmed case. Information extracted from each chart included: The date of onset and location of the incident; the age and sex of the victims; the species of fish eaten; the place where the fish was obtained; and the parts of the fish consumed.

The species of fish involved was usually identified by a common or Hawaiian name by those who saw the fish before

FIGURE 6:
CIGUATERA INCIDENTS
ISLAND OF HAWAII, 1984 - 1988



SOURCE: HAWAII STATE DEPARTMENT OF HEALTH

it was consumed. Occasionally fish markets had to be consulted regarding the correct nomenclature, and in only one instance was the type of fish unknown.

Several incidents occurred after the consumption of more than one type of fish. In these cases, the names of all the fish that may have been involved were recorded. The stick-test results of the fish were recorded as positive, borderline or negative, and were designated as either from the fish eaten or a companion sample (fish of the same species, caught at the same time and same location as the original fish).

In order to help determine if there were unreported cases, emergency room records in 6 different hospitals throughout the State were reviewed in order to find cases with the diagnosis of ciguatera. None was found. The hospitals chosen were those whose record-keeping systems allowed such investigations to be performed. The information was stored and analyzed using the D-Base III plus program on a Wang PC-compatible computer at the DoH office. Graphs were produced by *Harvard Graphics*.

Results

A total of 150 incidents were reported during the years 1984 to 1988 in the State of Hawaii. These incidents occurred in all 4 counties of the State and were investigated by the DoH Epidemiology branch. The150 incidents (57 confirmed, 93 probable) involved 462 cases of ciguatera. There were 652 exposed individuals; the 462 cases, therefore, comprised an overall attack rate of 70.9%. However the attack rate varied greatly in each outbreak; some outbreaks had attack rates of 100%. The island of Hawaii reported the most incidents, followed by Oahu, Kauai and Maui respectively (Table 1).

Although a significant increase in cases and incidents had been noted during the late 1970s and early 1980s, such increases have not been noted for the 1984 to 1988 period (see Figure 1). The island of Hawaii reported 8, 12, 12, 13, and 14 ciguatera incidents during each of the years from 1984 through 1988 (Figure 2). The other islands did not show significant increases during the same 5-year period (Figures 3, 4 and 5).

Kauai had 105 cases/100,000 population in 1985 primarily due to a problem with toxic *Ctenochaetus strigosus* (kole) fish

TABLE 2:
INCIDENTS OF CIGUATERA BY SPECIES OF FISH IMPLICATED, STATE OF HAWAII: 1984 - 1988

NAME OF FISH	NUMBER OF INCIDENTS
Ulua	19
Papio	16
Kole	15
Wahanui	12
Roi	7
Po'ou	6
Weke	4
Barracuda	4
Eel	3
Kahala	3
Palani	3
Uku	3
Ta'ape	3
Mullet	3
Opakapaka	2
Omilu	2
Moana	2

Fish may be implicated more than once.

TABLE 3:
INCIDENCE OF CIGUATERA BY AREA CAUGHT AND ISLAND: 1984 - 1988

AREA CAUGHT	NO. OF INCIDENTS
OAHU	
Reef Runway	3
Kaena Point	3
Barbers Point	2
Haleiwa	2
Waianae Coast	2
Waianae	2
HAWAII	
South Kona	7
Milolii	7
South Point	6
Kawaihae	4
Keei	4
Puako	4
Kona	2
Punaluu	2
MOLOKAI	2
KAUAI	
Napali Coast	7
Nualolo	2

Fish may be implicated more than once.

(Continued on page 97) ➤



ONLY ONE H_2-ANTAGONIST HEALS REFLUX ESOPHAGITIS AT DUODENAL ULCER DOSAGE. ONLY ONE.

Of all the H_2-receptor antagonists, only Axid heals and relieves reflux esophagitis at its standard duodenal ulcer dosage. Axid, **150** mg b.i.d., relieves heartburn in **86%** of patients after one day and **93%** after one week.[1]

AXID®
nizatidine
150 mg b.i.d.

ACID TESTED. PATIENT PROVEN.

1. Data on file, Lilly Research Laboratories.

See accompanying page for prescribing information.

©1991, ELI LILLY AND COMPANY

NZ-2947-B-249304

AXID®
nizatidine capsules



Brief Summary Consult the package insert for complete prescribing information.

Indications and Usage: 1. *Active duodenal ulcer*– for up to 8 weeks of treatment at a dosage of 300 mg h.s. or 150 mg b.i.d. Most patients heal within 4 weeks.

2. *Maintenance therapy*– for healed duodenal ulcer patients at a dosage of 150 mg h.s. at bedtime. The consequences of therapy with Axid for longer than 1 year are not known.

3. *Gastroesophageal reflux disease (GERD)*–for up to 12 weeks of treatment of endoscopically diagnosed esophagitis, including erosive and ulcerative esophagitis, and associated heartburn at a dosage of 150 mg b.i.d.

Contraindication: Known hypersensitivity to the drug. Because cross sensitivity in this class of compounds has been observed, H_2-receptor antagonists, including Axid, should not be administered to patients with a history of hypersensitivity to other H_2-receptor antagonists.

Precautions: *General*– 1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests– False-positive tests for urobilinogen with Multistix® may occur during therapy.

Drug Interactions– No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility– A 2-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a 2-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups.The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a 2-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy– Teratogenic Effects– Pregnancy Category C– Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in 1 fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in 1 fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers– Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use– Safety and effectiveness in children have not been established.

Use in Elderly Patients– Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Worldwide, controlled clinical trials included over 6,000 patients given nizatidine in studies of varying durations. Placebo-controlled trials in the United States and Canada included over 2,600 patients given nizatidine and over 1,700 given placebo. Among the adverse events in these placebo-controlled trials, only anemia (0.2% vs 0%) and urticaria (0.5% vs 0.1%) were significantly more common in the nizatidine group. Of the adverse events that occurred at a frequency of 1% or more, there was no statistically significant difference between Axid and placebo in the incidence of any of these events (see package insert for complete information).

A variety of less common events were also reported; it was not possible to determine whether these were caused by nizatidine.

Hepatic– Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to 3 times the upper limit of normal, however, did not significantly differ from that in placebo patients. All abnormalities were reversible after discontinuation of Axid. Since market introduction, hepatitis and jaundice have been reported. Rare cases of cholestatic or mixed hepatocellular and cholestatic injury with jaundice have been reported with reversal of the abnormalities after discontinuation of Axid.

Cardiovascular– In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in 2 individuals administered Axid and in 3 untreated subjects.

CNS– Rare cases of reversible mental confusion have been reported.

Endocrine– Clinical pharmacology studies and controlled clinical trials showed no evidence of anti-androgenic activity due to nizatidine. Impotence and decreased libido were reported with similar frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic– Anemia was reported significantly more frequently in nizatidine than in placebo-treated patients. Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental– Urticaria was reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity– As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other– Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. The ability of hemodialysis to remove nizatidine from the body has not been conclusively demonstrated, however, due to its large volume of distribution, nizatidine is not expected to be efficiently removed from the body by this method.

PV 2093 AMP [101591]

Additional information available to the profession on request

Lilly

Eli Lilly and Company
Indianapolis, Indiana
46285

NZ-2947-B-249304

© 1991, ELI LILLY AND COMPANY

CIGUATERA *(Continued from page 95)*

FIGURE 7:
CIGUATERA INCIDENTS 1984 - 1988

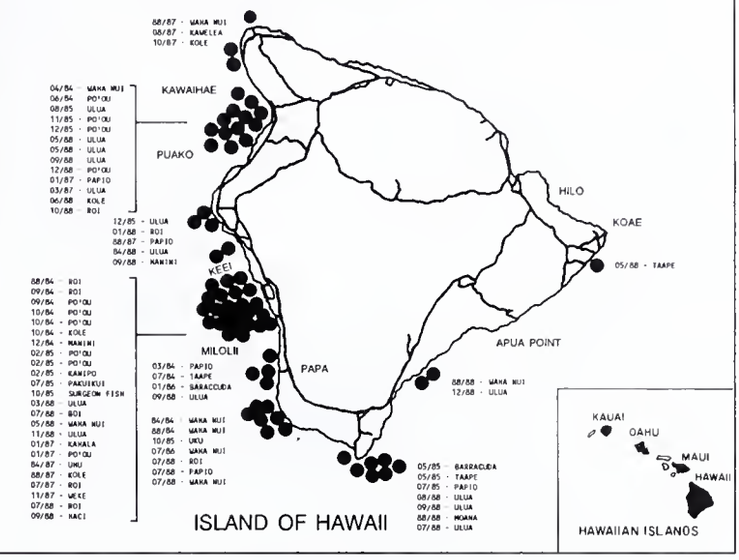
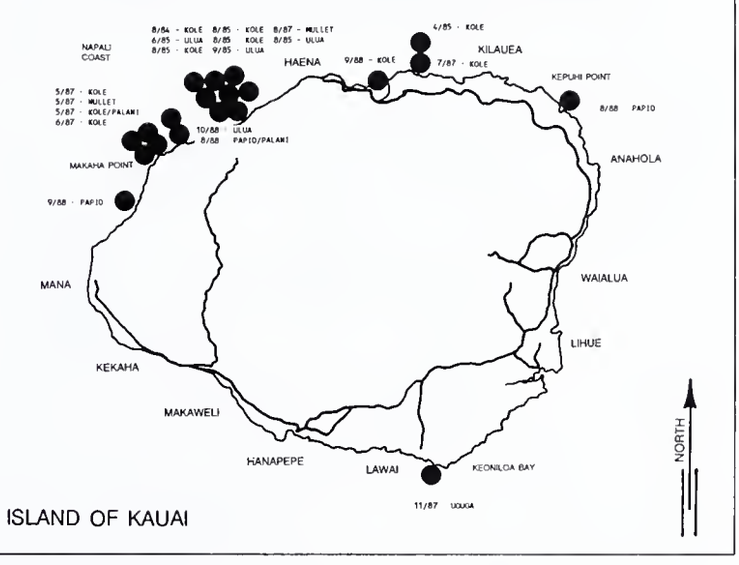


FIGURE 8:
CIGUATERA INCIDENTS 1984 - 1988



on the Napali coast.

The sex differential was 182 male patients and 174 females. An age distribution curve shows a peak in the early fourth decade of life (Figure 6).

The most frequently impugned species of fish were the Papio and Ulua causing a total of 35 incidents (Table 2). Kole were implicated in 15 ciguatera incidents. The third most frequently involved fish was the Wahanui (*Aphareus furcatus* or fork-tailed snapper) in 12 incidents. Other fish involved in more than one ciguatera incident included: Roi (*Cephalophilus guttatus* blue-spotted grouper); Po'ou; Weke; Barracuda); eel; Kahala; Palani; Uku (*Aprion virescens* gray snapper); Ta'ape (*Lutjanus kasmira* blue-lined snapper); Mullet; Opakapaka (*Pristipomoides filamentosus* snapper); Moana (*Parupeneus multifasciatus* goatfish); and Omilu *(Caranx melampygus* blue crevally). There were additional individual incidents involving consumption of more than one of the above fish at a time, or other fish whose common names were: Sea bass, shark, rainbow runner, blue-lined surgeonfish,

(Continued) ➤

FIGURE 9:
CIGUATERA INCIDENTS 1984 - 1988

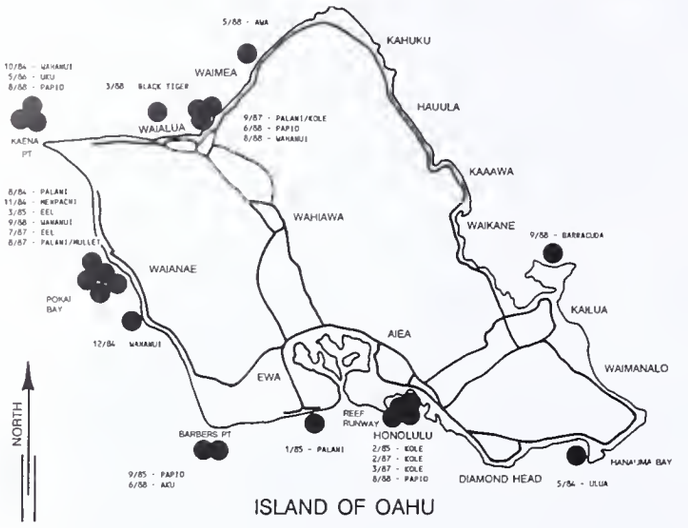


FIGURE 10:
CIGUATERA INCIDENTS 1984 - 1988

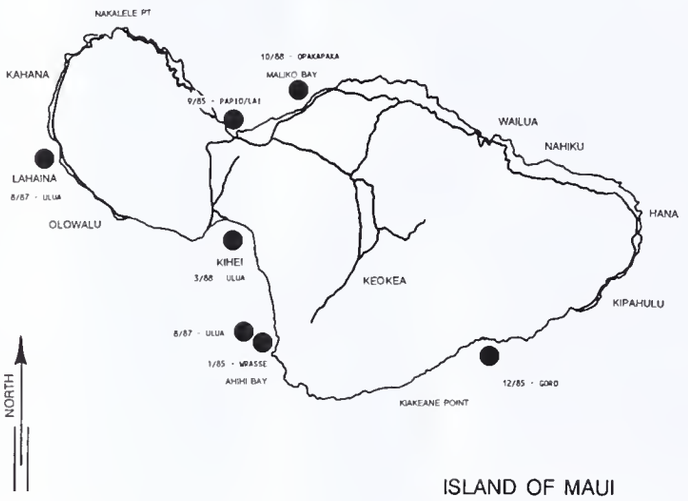
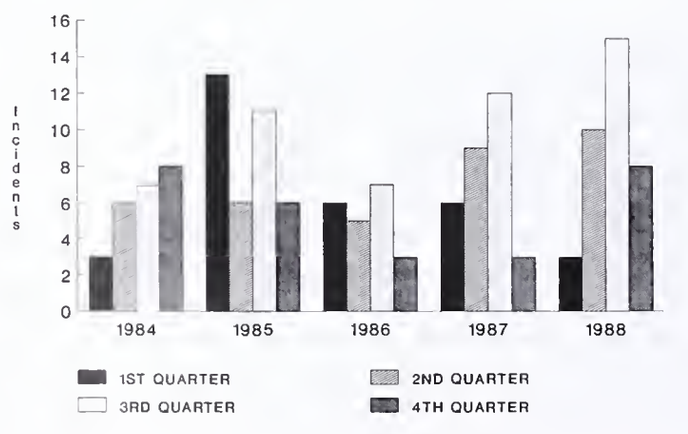


FIGURE 11:
INCIDENTS OF CIGUATERA BY QUARTER:
1984 - 1988



smoked mackerel from the Philippines (*Tinapa Galongong*), Wahoo, false mullet, Japanese barracuda, Achilles tang, black trigger, milkfish, convict tang, squirrel-fish, porgy and red snapper. Oddly, there was one outbreak attributable to the consumption of octopus and another to Aku.

The Kona coast of the island of Hawaii was responsible for the most incidents (Table 3). These fish were primarily caught by sportfishing off the Napali Coast of Kauai, South Point of Hawaii, Kaena Point, Barber's Point, Pokai Bay and the Waianae coast of Oahu (Figures 7, 8, 9 and 10). In addition to the sites represented on the maps, there were 2 episodes of ciguatera attributable to fish caught off Molokai, and one off the island of Lanai.

No marked seasonal variation was observed in ciguatera incidents, although there was a slight increase noted during the third quarter of the year (July through September), and a decrease during the fourth quarter (October through December) during the 5-year period studied (Figure 11).

Of the 150 known ciguatera incidents, in 130, records were kept indicating the parts of the fish that were consumed. In 59, parts of the fish other than the flesh, such as the head, viscera and roe, or a soup made from these parts, were consumed by at least one of the individuals who became ill .

Commercially sold fish accounted for 33 out of the 150 ciguatera incidents (22%). These fish were either consumed in a restaurant or were purchased from markets. The other 78% of incidents were attributable to fish caught recreationally.

In 89 incidents fish were available for testing using the stick-test, either leftovers of the fish actually eaten or fish from a companion catch. The putative fish itself was available for testing in only 61 incidents.

Discussion

The statewide incidence rate of 8.7/100,000 shows a significant increase over the previous epidemiologic study of 1975 to 1981 that demonstrated an incidence of 3/100,000[13]. The increase occurred largely during the early 1980s (Figures 1 and 2). (In referring to the figures, it is important for the reader to realize that the number of incidents correlates more closely with the actual endemicity of ciguatera at a given period of time rather than with the number of cases; the latter relates to the number of people who ate the toxic fish. Thus, a single outbreak affecting 100 people would be of less consequence epidemiologically than 100 different fish making 100 people ill.) This may be a result of increased awareness of the disease and better reporting, but it is also likely that there actually has been an increase in ciguatera in the Hawaiian Islands. This may be due to changes in the reef environment similar to what has occurred in the Marshall islands[18].

In the last 5 years, however, the ciguatera rates seem to have reached a plateau. The areas typically affected are the leeward coastal areas. Areas of dredging and construction will often show an increase in ciguatoxic fish, such as when the reef-runway at Honolulu International Airport was constructed. Construction lasted from May 1973 to December 1977. The first toxic fish began to be recorded in April, 1978, 4 months after the construction ceased, and toxic fish are still known to inhabit the region. The Pokai Bay area of the Waianae Coast underwent construction of a breakwater from April 1977 to

January 1979; it involved dredging, filling and blasting. After 15 months, reports of toxic fish began appearing, and to the present, the Pokai Bay area is known for its ciguatera problem[13]. The large increase in reported cases from the Kona coast of the Big Island may also be related to the multiple construction projects that occurred earlier this decade.

The age of onset of the disease correlates well with the ages of individuals more likely to be out fishing. If it is true that the susceptibility to ciguatoxin increases with repeated previous exposure, one would expect that older age groups with more years of exposure to ciguatoxin would have more cases of illness. Age distributions in other studies have been similar[9,27].

The slight increase in the number of ciguatera incidents during the third quarter of the year may be due to climatic changes of the reef environment, or an increase in fishing activity during that time of the year. The decrease during the fourth quarter may be due to cooler and increasingly rainy weather. A seasonal study from Puerto Rico showed definite seasonal trends with peak seasons for ciguatoxic barracuda occurring in January to May, and August to November[28].

In 59 of the 150 ciguatera incidents, at least one (and usually more) of the victims consumed a portion of the fish known to concentrate the ciguatoxin, notably the gut, liver, head and roe, as well as a soup or broth made of the latter. It is likely that many, if not most, of these outbreaks (a large proportion of the total) could have been avoided if the individuals involved had been educated regarding ciguatera and the concentration of the ciguatoxin in these parts of the fish.

Ciguatera is of great concern at local fish markets, which attempt to avoid the sale of toxic fish by avoiding buying fish caught near leeward reefs, as well as avoiding the sale of specific species known to be toxic. The Kahala is an example of a fish that is no longer sold in local markets due to its high prevalence for ciguatoxicity.

The use of the stick-test for commercial use does not appear to be cost-effective. It is reassuring to know that in the year 1987, among a total of 164,910 reef fish caught commercially, only 5 incidents of ciguatera poisoning were reported, only .003% of the total reef fish caught. The year 1987 is representative of other years as well, in which commercial ciguatoxic fish have only been implicated, ie in 3 to 10 incidents per year during the years 1984 to 1988.

The major source of ciguatera cases has been the fish caught by sportfishing, typically on weekends and holidays. If people could be educated to avoid consuming heads, viscera and roe of reef fish (especially a soup made of the above); and avoid fish caught in the areas known for being ciguatera-prone, the rates of ciguatera would decrease dramatically. The addition of the stick-test for use in sportfishing could reduce the rates of illness even more .

Since the future incidence of ciguatera is unpredictable, we cannot assume the problem will go away. We can, however, significantly reduce the probability of future outbreaks by educating the public, and by encouraging the use of the stick-test in sportfishing.

ACKNOWLEDGEMENTS

Appreciation is expressed to Dr Yoshitsugi Hokama of the University of Hawaii Department of Pathology and his laboratory assistants for their stick-testing of all of the fish in this study; Ms Alix Gillam for her assistance in production of graphics; and the epidemiology staff of the Hawaii State Department of Health, both in Honolulu and the Neighbor Islands, for their assistance in obtaining data.

REFERENCES

1. Ragelis EP: Ciguatera Seafood Poisoning: Overview. In: *Seafood Toxins,* p.4 (Ragelis, EP, Ed.). Am Chem Soc Symp Series, no. 262.
2. Ciguatera Fish Poisoning, Maryland, Centers for Disease Control. *MMWR,* 1980;29:610.
3. Todd E, Szabo R. Ciguatera Poisoning-First Confirmed Report in Canada. *Canadian Diseases Weekly Report,* 1983;8:174-176.
4. Ho AM, Fraser IM, Todd EC: Ciguatera Poisoning. A Report of Three Cases. *Ann Emerg Med,* 1986;15:1225-8.
5. Cohen L, MacLean JD, Lalonde R: Ciguatera Fish Toxin Poisoning: An Outbreak in Canadian Tourists in the Dominican Republic. *Canadian Diseases Weekly Report,* 1987;12:73-75.
6. Frenette C, MacLean JD, Cedilotte L: Ciguatera — A Large Common Source Outbreak in Canadian Vacationers in Cuba. *Canadian Diseases Weekly Report,* 1987;13:87-8.
7. Withers NW: Ciguatera Fish Poisoning. *Ann Rev Med,* 1982;33:97-111.
8. Campbell B, Nakagawa LK, Kobayashi MN, Hokama Y: *Gambierdiscus Toxicus* in Gut Content of the Surgeonfish *Ctenochaetus Strigosus* (Herbivore) and its Relationship to Toxicity. *Toxicon,* 1987;10:1125-1127.
9. Morris JG, Lewin P, Smith CW, Blake PA, Schneider R: Ciguatera Fish Poisoning: Epidemiology of the Disease on St Thomas, U.S.Virgin Islands. *Am J Trop Med Hyg,* 1982;31(3):574-578.
10. Helfrich P: Fish Poisoning in Hawaii. *Hawaii Med J,* 1963;22:361-372.
11. Bach F, Terrell-Perica S: Ciguatera Fish Poisoning in the Pacific, in *South Pacific Commission Information Circular.* Serial No: 115, July-September 1988.
12. Lange WR: Ciguatera Toxicity. *AFP* 1987;35:177-182.
13. Anderson BS, Sims JK, Wiebenga NH, Sugi MS: The Epidemiology of Ciguatera Fish Poisoning in Hawaii 1975-1981. *Hawaii Med J,* 1983;42:326-334.
14. Dembert ML, Strosahl KF, Bumgarner RL: Diseases from Fish and Shellfish Ingestion. *AFP,* 1981;24:103-108.
15. Hokama Y: Ciguatera Fish Poisoning. *Journal of Clinical Laboratory Analysis,* 1988;2:44-50.
16. Steinfeld AD, Steinfeld HJ: Ciguatera and the Voyage of Captain Bligh. *JAMA,* 1974;228:1270-1271..
17. Cooper MJ: Ciguatera and Other Marine Poisoning in the Gilbert Islands. Pacific Science Vol. XVIII, No. 4, pp. 411-440, 1964.
18. Ruff TA: Ciguatera in the Pacific: A Link With Military Activities. *Lancet,* 1989;1(8631):201-205.
19. Lewis, ND: Disease and Development: Ciguatera Fish Poisoning. *Soc Sci Med, 1986;*23:983-993..
20. Morris JG, Lewin P, Hargrett NT, Smith CW, Blake PA, Schneider R: Clinical Features of Ciguatera Fish Poisoning. A Study of the Disease in the US Virgin Islands. *Arch Intern Med,* 1982;142:1090-1092.
21. Lawrence DN, Enriquez MB, Lumish RM, Maceo A: Ciguatera Fish Poisoning in Miami. *JAMA,* 1980;244:254-258.
22. Rayner MD, Kosaki TI, Fellmeth EL: Ciguatoxin: More than an Anticholinesterase. *Science,* 1968;160:70-71.
23. Palafox NA, Jain LG, Pinano AZ, Gulick TM, Williams RK, Schatz IJ: Successful Treatment of Ciguatera Fish Poisoning with Intravenous Mannitol. *JAMA,* 1988;259:2740-2742.
24. Sorokin M: Ciguatera Poisoning in North-West Viti Levu, Fiji Islands. *Hawaii Med J,* 34,207-210. 1975.
25. Bagnis, R: Clinical Aspects of Ciguatera (Fish Poisoning) in French Polynesia. *Hawaii Med J,* 1968;28:25-28.
26. Hokama Y: A Rapid, Simplified Enzyme Immunoassay Stick Test For the Detection of Ciguatoxin and Related Polyethers from Fish Tissues. *Toxicon,* 1985;23:939-946.
27. Bagnis R, Kuberski T, Laugier S: Clinical Observations on 3,009 Cases of Ciguatera (Fish Poisoning) in the South Pacific. *Am J Trop Med Hyg,* 1979;23(6):1067-1073.
28. Tosteson TR, Ballantine DL, Durst HD: Seasonal Frequency of Ciguatoxic Barracuda in Southwest Puerto Rico. *Toxicon,* 1988;26:795-801.

Providing health care to Hawaii's elderly

Cullen T Hayashida PhD*
Warren Wong MD**

Hawaii's rapidly aging population is a challenge for Hawaii's health care providers. What with the high cost of care, limited health care resources, and a rapidly increasing population of frail elderly patients living in the community, will our medical practices be able to adapt to the care of patients who require more time and who will have not only multiple medical illnesses but complicated psychosocial conditions as well? Will our health care facilities be prepared for the typically longer stay and more expensive older patient? Will the cost of care in Hawaii keep on rising? Who will pay? Will this challenge turn into a crisis?

Demography of aging in Hawaii

Ours is one of the nation's most rapidly aging populations. In 1989, the ≥ 65 years population numbered 125,300 or 10.7% of the State's population. In comparison to the national average of 12.5%, Hawaii has a lower percentage of elderly. Within the next 2 decades, however, Hawaii's population ≥ 65 is projected to increase by over 50% while the total resident population is expected to increase by only 23.3%. This change represents a rate of growth more than 2.5 times the national growth rate of the elderly. Consequently we will witness before the turn of the century the convergence of the proportion of the elderly in Hawaii with the national average as depicted in Figure 1[1].

The dramatic rise in the proportion of elderly in Hawaii is partly attributable to the rapid rise in the life-expectancy of Hawaii's people. It is well established that Hawaii's life-expectancy at birth is the nation's highest. In 1985, Hawaii's life-expectancy at birth was 77.98 years; this was higher than every state in the Union. The corresponding figure for the entire U.S. for that same year was 74.7 years, or 3 years less. Based on available international evidence from other high life-expectancy countries in Europe and Japan, there is reason to believe that Hawaii's life-expectancy rate might be among the highest in the world as well[2].

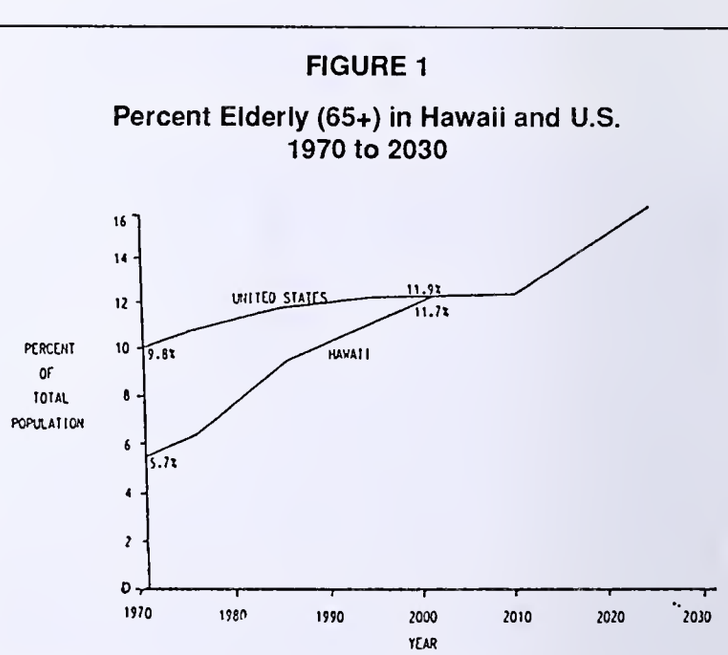
As portrayed in Figure 2, the elderly population (≥ 65 years) is aging in ways similar to patients for both the U.S. and Hawaii, ie moderate proportional increases occurring in the 75- to 84-year-old category, a large proportional increase occurring in the ≥ 85-year-old category and a proportional decrease occurring in the 65- to 74-year-old category. While this change is expected to occur over a 100-year period (1900 to 2000) for the entire U.S., it is occurring in Hawaii over only 50 years (1950 to 2000). The rapid increase particularly in the proportion of those over age 85 will place an enormous burden on available long-term care services since the need for long-term care rises sharply with age[3].

Present and projected health care delivery systems

The added challenge of providing health care to an aging population will further strain an already stretched health care system. In 1989, Hawaii's acute care bed supply of 193.4 beds per 100,000 remained far below the national average of 353.4 beds per 100,000[4]. Hawaii has maintained a significantly lower hospital admissions rate of 107.5 per 1,000 population versus 135.9 per 1,000 for the U.S. as a whole. As a consequence, Hawaii's hospital occupancy (82.8% versus 69.6% for the U.S.) and outpatient hospital services rates

FIGURE 1

Percent Elderly (65+) in Hawaii and U.S. 1970 to 2030



Source: Hayashida CT, Sherman S and Sasaki H. *Adult Day Care Centers in Hawaii: Comprehensive Assessment for Strategic Planning for the 1990s.* Kuakini Geriatric Care, Inc., Honolulu, Hawaii. December 1987. Page III-42.

(Continued on page 103) ➤

* Director
Maluhia Home Health Care
Maluhia Long-Term Health Center
Hawaii State Department of Health
** Medical Director
Skilled Nursing Facility
Kaiser Medical Center

Received for publication December 2, 1991.

The ACCUPRIL Single-Agent Commitment™

Parke-Davis is confident that for many of your hypertensive patients ACCUPRIL will achieve the decrease in blood pressure you expect.

If, in your medical judgment, your patient requires a diuretic in addition to ACCUPRIL at any time during ACCUPRIL therapy, Parke-Davis will refund your patient's cost of the diuretic.*†



New!

ONCE-A-DAY‡

ACCUPRIL®™

quinapril HCl tablets 10, 20, 40 mg

* See DOSAGE AND ADMINISTRATION section of prescribing information.

† If, after an adequate trial of ACCUPRIL alone, based on your medical judgment as the prescribing physician, you determine that your patient requires the addition of a diuretic, Parke-Davis will refund to the patient his/her cost for the diuretic prescription less any amount reimbursed or paid for by an HMO, insurance company, or any other plan or program.

For more details, ask your Parke-Davis Representative or call 1-800-955-3077.

‡ In some patients, the antihypertensive effect may diminish toward the end of the once-daily dosing interval. In such patients, an increase in dosage or twice-daily administration may be warranted.

ACCUPRIL is available in 10, 20, and 40 mg tablets. Usual initial starting dosage is 10 mg once daily.

ACCUPRIL is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Please see brief summary of prescribing information on following page.

© 1991 Warner-Lambert Company

PARKE-DAVIS

Accupril® (Quinapril Hydrochloride Tablets)

Before prescribing, please see full prescribing information. A brief summary follows.

INDICATIONS AND USAGE

ACCUPRIL is indicated for the treatment of hypertension. It may be used alone or in combination with thiazide diuretics.

In using ACCUPRIL, consideration should be given to the fact that another angiotensin-converting enzyme (ACE) inhibitor, captopril, has caused agranulocytosis, particularly in patients with renal impairment or collagen vascular disease. Available data are insufficient to show that ACCUPRIL does not have a similar risk (see WARNINGS).

CONTRAINDICATIONS

ACCUPRIL is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

WARNINGS

Angioedema: Angioedema of the face, extremities, lips, tongue, glottis, and larynx has been reported in patients treated with ACE inhibitors and has been seen in 0.1% of patients receiving ACCUPRIL. Angioedema associated with laryngeal edema can be fatal. If laryngeal stridor or angioedema of the face, tongue, or glottis occurs, treatment with ACCUPRIL should be discontinued immediately, the patient treated in accordance with accepted medical care, and carefully observed until the swelling disappears. In instances where swelling is confined to the face and lips, the condition generally resolves without treatment; antihistamines may be useful in relieving symptoms.

Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, emergency therapy including, but not limited to, subcutaneous epinephrine solution 1:1000 (0.3 to 0.5 mL) should be promptly administered (see ADVERSE REACTIONS).

Hypotension: Symptomatic hypotension was rarely seen in uncomplicated hypertensive patients treated with ACCUPRIL but, as with other ACE inhibitors, it is a possible consequence of therapy in salt/volume depleted patients, such as those previously treated with diuretics or dietary salt restriction or who are on dialysis (see PRECAUTIONS, DRUG INTERACTIONS, and ADVERSE REACTIONS). In controlled studies, syncope was observed in 0.4% of patients (N = 3203); this incidence was similar to that observed for captopril (1%) and enalapril (0.8%).

In patients with concomitant congestive heart failure, with or without associated renal insufficiency, ACE inhibitor therapy may cause excessive hypotension, which may be associated with oliguria or azotemia and, rarely, with acute renal failure and death. In such patients, ACCUPRIL therapy should be started at the recommended dose under close medical supervision. These patients should be followed closely for the first 2 weeks of treatment and whenever the dosage of antihypertensive medication is increased (see DOSAGE AND ADMINISTRATION).

If symptomatic hypotension occurs, the patient should be placed in the supine position and, if necessary, normal saline may be administered intravenously. A transient hypotensive response is not a contraindication to further doses; however, lower doses of ACCUPRIL or reduced concomitant diuretic therapy should be considered.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression rarely in patients with uncomplicated hypertension, but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease such as systemic lupus erythematosus or scleroderma. Agranulocytosis did occur during ACCUPRIL treatment in one patient with a history of neutropenia during previous captopril therapy. Available data from clinical trials of ACCUPRIL are insufficient to show that, in patients without prior reactions to other ACE inhibitors, ACCUPRIL does not cause agranulocytosis at similar rates. As with other ACE inhibitors, periodic monitoring of white blood cell counts in patients with collagen vascular disease and/or renal disease should be considered.

Fetal/Neonatal morbidity and mortality: ACE inhibitors, including ACCUPRIL, can cause fetal and neonatal morbidity and mortality when administered to pregnant women.

When ACE inhibitors have been used during the second and third trimesters of pregnancy, there have been reports of hypotension, renal failure, skull hypoplasia, and death. Oligohydramnios has also been reported, presumably resulting from decreased fetal renal function; oligohydramnios has been associated with fetal limb contractures, craniofacial deformities, hypoplastic lung development, and intrauterine growth retardation.

Prematurity and patent ductus arteriosus have been reported, although it is not clear whether these occurrences were due to the ACE-inhibitor exposure or to the mother's underlying disease. It is not known whether exposure limited to the first trimester can adversely affect fetal outcome.

A patient who becomes pregnant while taking ACE inhibitors, or who takes ACE inhibitors when already pregnant, should be apprised of the potential hazard to her fetus. If she continues to receive ACE inhibitors during the second or third trimester of pregnancy, frequent ultrasound examinations should be performed to look for oligohydramnios. When oligohydramnios is found, ACE inhibitors should generally be discontinued.

Infants with histories of in utero exposure to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion. Hemodialysis and peritoneal dialysis have little effect on the elimination of quinapril and quinaprilat.

No fetotoxic or teratogenic effects were observed in rats at quinapril doses as high as 300 mg/kg/day (180 and 30 times the maximum daily human dose when based on mg/kg and mg/m², respectively), despite maternal toxicity at 150 mg/kg/day. Tested later in gestation and during lactation, reduced offspring body weight was seen at ≥25 mg/kg/day, and changes in renal histology (juxtaglomerular cell hypertrophy, tubular/pelvic dilation, glomerulosclerosis) were observed both in dams and offspring treated with 150 mg/kg/day. Quinapril was not teratogenic in the rabbit, however, as noted with other ACE inhibitors, maternal toxicity and embryotoxicity were seen in some rabbits at quinapril doses as low as 0.5 mg/kg/day (one time the recommended human dose) and 1.0 mg/kg/day, respectively.

PRECAUTIONS

General

Impaired renal function: As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including ACCUPRIL, may be associated with oliguria and/or progressive azotemia and rarely acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine have been observed in some patients following ACE inhibitor therapy. These increases were almost always reversible upon discontinuation of the ACE inhibitor and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some hypertensive patients with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when ACCUPRIL has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of any diuretic and/or ACCUPRIL may be required.

Evaluation of hypertensive patients should always include assessment of renal function (see DOSAGE AND ADMINISTRATION).

Hyperkalemia and potassium-sparing diuretics: In clinical trials, hyperkalemia (serum potassium ≥5.8 mmol/L) occurred in approximately 2% of patients receiving ACCUPRIL. In most cases, elevated serum potassium levels were isolated values which resolved despite continued therapy. Less than 0.1% of patients discontinued therapy due to hyperkalemia. Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with ACCUPRIL (see PRECAUTIONS, Drug Interactions).

Surgery/anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, ACCUPRIL will block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients

Angioedema: Angioedema, including laryngeal edema, can occur with treatment with ACE inhibitors, especially following the first dose. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to stop taking the drug until they have consulted with their physician (see WARNINGS).

Symptomatic hypotension: Patients should be cautioned that lightheadedness can occur, especially during the first few days of ACCUPRIL therapy, and that it should be reported to a physician. If actual syncope occurs, patients should be told to not take the drug until they have consulted with their physician (see WARNINGS).

All patients should be cautioned that inadequate fluid intake or excessive perspiration, diarrhea, or vomiting can lead to an excessive fall in blood pressure because of reduction in fluid volume, with the same consequences of lightheadedness and possible syncope.

Patients planning to undergo any surgery and/or anesthesia should be told to inform their physician that they are taking an ACE inhibitor.

Hyperkalemia: Patients should be told not to use potassium supplements or salt substitutes containing potassium without consulting their physician (see PRECAUTIONS).

New!

ONCE-A-DAY*

ACCUPRIL®

quinapril HCl tablets

Accupril® (Quinapril Hydrochloride Tablets)

Neutropenia: Patients should be told to report promptly any indication of infection (eg, sore throat, fever) which could be a sign of neutropenia.

NDTE. As with many other drugs, certain advice to patients being treated with ACCUPRIL is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions

Concomitant diuretic therapy: As with other ACE inhibitors, patients on diuretics, especially those on recently instituted diuretic therapy, may occasionally experience an excessive reduction of blood pressure after initiation of therapy with ACCUPRIL. The possibility of hypotensive effects with ACCUPRIL may be minimized by either discontinuing the diuretic or cautiously increasing salt intake prior to initiation of treatment with ACCUPRIL. If it is not possible to discontinue the diuretic, the starting dose of quinapril should be reduced (see DOSAGE AND ADMINISTRATION).

Agents increasing serum potassium: Quinapril can attenuate potassium loss caused by thiazide diuretics and increase serum potassium when used alone. If concomitant therapy of ACCUPRIL with potassium-sparing diuretics (eg, spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes is indicated, they should be used with caution along with appropriate monitoring of serum potassium (see PRECAUTIONS).

Tetracycline and other drugs that interact with magnesium: Simultaneous administration of tetracycline with ACCUPRIL reduced the absorption of tetracycline by approximately 28% to 37%, possibly due to the high magnesium content in ACCUPRIL tablets. This interaction should be considered if coprescribing ACCUPRIL and tetracycline or other drugs that interact with magnesium.

Lithium: Increased serum lithium levels and symptoms of lithium toxicity have been reported in patients receiving concomitant lithium and ACE inhibitor therapy. These drugs should be co-administered with caution, and frequent monitoring of serum lithium levels is recommended. If a diuretic is also used, it may increase the risk of lithium toxicity.

Other agents: Drug interaction studies of ACCUPRIL with other agents showed:

- Multiple dose therapy with propranolol or cimetidine has no effect on the pharmacokinetics of single doses of ACCUPRIL.
- The anticoagulant effect of a single dose of warfarin (measured by prothrombin time) was not significantly changed by quinapril coadministration twice-daily.
- ACCUPRIL treatment did not affect the pharmacokinetics of digoxin.
- No pharmacokinetic interaction was observed when single doses of ACCUPRIL and hydrochlorothiazide were administered concomitantly.

Carcinogenesis, Mutagenesis, Impairment of Fertility

Quinapril hydrochloride was not carcinogenic in mice or rats when given in doses up to 75 or 100 mg/kg/day (50 to 60 times the maximum human daily dose, respectively, on a mg/kg basis and 3.8 to 10 times the maximum human daily dose when based on a mg/m² basis) for 104 weeks. Female rats given the highest dose level had an increased incidence of mesenteric lymph node hemangiomas and skin/subcutaneous lipomas. Neither quinapril nor quinaprilat were mutagenic in the Ames bacterial assay with or without metabolic activation. Quinapril was also negative in the following genetic toxicology studies: *in vitro* mammalian cell point mutation, sister chromatid exchange in cultured mammalian cells, micronucleus test with mice, *in vitro chromosome* aberration with V79 cultured lung cells, and in an *in vivo* cytogenetic study with rat bone marrow. There were no adverse effects on fertility or reproduction in rats at doses up to 100 mg/kg/day (60 and 10 times the maximum daily human dose when based on mg/kg and mg/m², respectively).

Pregnancy

Pregnancy Category D: See WARNINGS, Fetal/Neonatal morbidity and mortality.

Nursing Mothers

It is not known if quinapril or its metabolites are secreted in human milk. Quinapril is secreted to a limited extent, however, in milk of lactating rats (5% or less of the plasma drug concentration was found in rat milk). Because many drugs are secreted in human milk, caution should be exercised when ACCUPRIL is given to a nursing mother.

Geriatric Use

Elderly patients exhibited increased area under the plasma concentration time curve (AUC) and peak levels for quinaprilat compared to values observed in younger patients; this appeared to relate to decreased renal function rather than to age itself. In controlled and uncontrolled studies of ACCUPRIL where 918 (21%) patients were 65 years and older, no overall differences in effectiveness or safety were observed between older and younger patients. However, greater sensitivity of some older individual patients cannot be ruled out.

Pediatric Use

The safety and effectiveness of ACCUPRIL in children have not been established.

ADVERSE REACTIONS

ACCUPRIL has been evaluated for safety in 4960 subjects and patients. Of these, 3203 patients, including 655 elderly patients, participated in controlled clinical trials. ACCUPRIL has been evaluated for long-term safety in over 1400 patients treated for 1 year or more.

Adverse experiences were usually mild and transient.

Discontinuation of therapy because of adverse events was required in 4.7% of patients treated with ACCUPRIL in placebo-controlled hypertension trials.

Adverse experiences probably or possibly related to therapy or of unknown relationship to therapy occurring in 1% or more of the 1563 patients in placebo-controlled hypertension trials who were treated with ACCUPRIL are shown below.

Adverse Events in Placebo-Controlled Trials

	ACCUPRIL (N = 1563) Incidence (Discontinuance)	Placebo (N = 579) Incidence (Discontinuance)
Headache	5.6 (0.7)	10.9 (0.7)
Dizziness	3.9 (0.8)	2.6 (0.2)
Fatigue	2.6 (0.3)	1.0
Coughing	2.0 (0.5)	0.0
Nausea/Vomiting	1.4 (0.3)	1.9 (0.2)
Abdominal Pain	1.0 (0.2)	0.7

Clinical adverse experiences probably or possibly related, or of uncertain relationship to therapy, occurring in 0.5% to 1.0% (except as noted) of the patients treated with ACCUPRIL (with or without concomitant diuretic) in controlled or uncontrolled trials (N = 4397) and less frequent, clinically significant events seen in clinical trials or post-marketing experience (the rarer events are in italics) include (listed by body system):

General: back pain, malaise

Cardiovascular: palpitation, vasodilation, tachycardia, *heart failure, hyperkalemia, myocardial infarction, cerebrovascular accident, hypertensive crisis, angina pectoris, orthostatic hypotension, cardiac rhythm disturbances*

Gastrointestinal: dry mouth or throat, constipation, *gastrointestinal hemorrhage, pancreatitis, abnormal liver function tests*

Nervous/Psychiatric: somnolence, vertigo, syncope, *nervousness, depression*

Integumentary: increased sweating, pruritus, *exfoliative dermatitis, photosensitivity reaction*

Urogenital: *acute renal failure*

Other: amblyopia, pharyngitis, sinusitis, bronchitis, *agranulocytosis, thrombocytopenia*

Angioedema: angioedema has been reported in patients receiving ACCUPRIL (0.1%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with ACCUPRIL should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Clinical Laboratory Test Findings

Hematology: (See WARNINGS)

Hyperkalemia: (See PRECAUTIONS)

Creatinine and blood urea nitrogen: Increases (>1.25 times the upper limit of normal) in serum creatinine and blood urea nitrogen were observed in 2% and 2%, respectively, of patients treated with ACCUPRIL alone. Increases are more likely to occur in patients receiving concomitant diuretic therapy than in those on ACCUPRIL alone. These increases often remit on continued therapy.

* In some patients, the antihypertensive effect may diminish toward the end of the once-daily dosing interval. In such patients, an increase in dosage or twice-daily administration may be warranted.

PARKE-DAVIS
Division of Warner-Lambert Company
Morris Plains, New Jersey 07950

PD-103-JA-7164-A2(022)

(2,074.5/1,000 versus 1057.5/1,000 for the U.S.), were appreciably higher.

Acute hospital bed availability is tight not only because of the low ratio of beds per 1,000 population, but also because of the shortage of long-term care beds. Approximately 200 acute care beds, representing 10% of Hawaii's total medical-surgical bed supply, are occupied by patients awaiting placement in long-term care[5]. The proportion of medical-surgical beds occupied by wait-listed patients on the Neighbor Islands is even greater. With only 3,416 long-term care beds available, Hawaii's ratio of 27.3 beds per 1,000 elderly is far below the national average of 65.5 beds per 1,000 elderly. Furthermore, since 1984, there has been an actual decline in the ratio of nursing home beds per 1,000 elderly.

Hawaii's health care system is clearly not meeting the needs of Hawaii's elderly population. And the back-up of long-term care patients in acute hospital beds is likely to worsen in coming years. Since March 1990, there has been no new construction of long-term care beds. In January 1992, were about 180 nursing home beds that have been approved by the Hawaii State Health Planning and Development Agency (SHPDA). These beds, however, are not expected to be available for at least another 2 years. Even then, this new supply will fall far short of Hawaii's growing demand for institutional long-term care services.

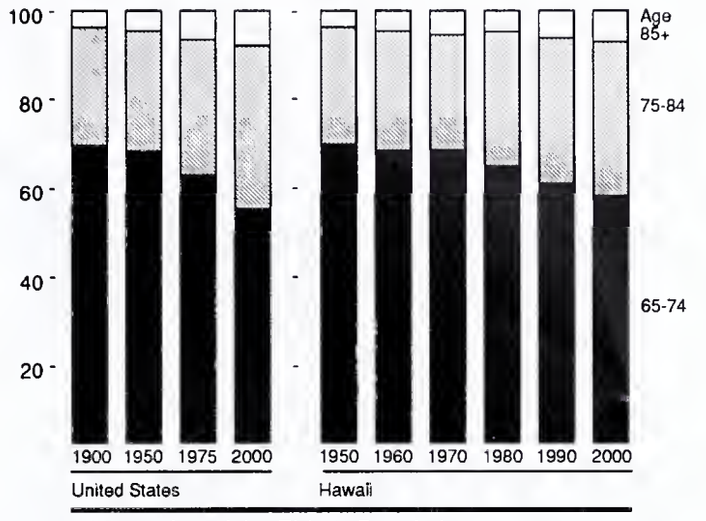
One reason for the historically low nursing home bed ratio is that Hawaii's families have long been the major source of long-term and informal support to the frail and dependent elderly population. In comparison to their Mainland counterparts, Hawaii's families may continue to be more supportive of their elderly parents.

More recently, other factors, such as the fiscal pressures for earlier discharge from acute care, as exemplified by the Medicare DRG hospital payment system, have been significant. The State's Medicaid program has faced increased budget tightening and, therefore, has been unable to increase its reimbursements for institutional long-term care services.

Increased competition posed by the visitor industry to entry-level workers represents a significant factor in curtailing the health industry's labor pool. Without adequate staffing, available beds cannot be used. This is compounded by the strict requirements for certification, licensing and training imposed by the state and federal governments.

The nursing home bed shortage is already beginning to have repercussions on the health care delivery system. Hospitals are competing for limited nursing home beds by structuring special arrangements for more favorable status with nursing homes. The paucity of vacancies in nursing homes is increasing as indicated by the subversion to subacute or super-SNF levels, and hospitals are forced to create their own nursing home units. Care homes of higher level that were able to transfer clients to nursing homes previously are now being denied that access. As a result, the Department of Human Services (DHS) has been forced to create a separate payment rate for care homes that have ICF-level clients in order to accommodate the backlog. Because of the premium on beds, nursing homes are in a position to admit patients selectively.

FIGURE 2



• The Aging of the Elderly Population U.S. and Hawaii to Year 2000

Source: Hayashida CT, Sherman S and Sasaki H. *Adult Day Care Centers in Hawaii: Comprehensive Assessment for Strategic Planning for the 1990s.* Kuakini Geriatric Care, Inc., Honolulu, Hawaii. December 1987. Page III-44.

Patients who are difficult to care for or who have little or no financial support are unlikely to be chosen. As a result, their families are experiencing more stress and burden, which is conducive to an increase in elder abuse and neglect cases.

As for current and projected cost of health care services, according to the Hawaii State Executive Office on Aging, it is expected to grow almost exponentially from now into the 21st century. Consider these sobering statistics given in today's dollars. Within the next 30 years or by the year 2020[7]:

- The State's portion for the Medicaid program for elderly nursing home care will grow by more than 1,300% from $38.3 million in 1991 to over $544 million. This represents only 33% of the total cost, with families and the federal government also contributing a third each.
- The total long-term care bill, including the costs of nursing home and paid home care in Hawaii will grow by more than 1,000% to a staggering $2.05 billion.

The national deficit that has exceeded $4 trillion does not give Hawaii much hope that the federal government will be the expected panacea. Efforts to reduce Medicare's rate of expenditure have been made and will continue to be made. The U.S. government also considers its participation in the Medicaid program as a plausible target for federal budget cuts in the years ahead.

Conclusion

There is great pressure to control the cost of health care. At the same time, the aging population will have a higher prevalence of disease and will require more intensive acute and long-term care services. Hawaii, with its limited hospital bed capacity and high cost of care, is on the frontline of these challenges.

To keep challenge from turning into crisis, certain strate-

(Continued) ➤

YOCON®
YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



AVAILABLE AT PHARMACIES NATIONWIDE

PALISADES PHARMACEUTICALS, INC.
219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

HAWAII'S ELDERLY *(Continued from page 104)*

gies are necessary. Patients whose health is likely to deteriorate must be identified before it does. Once these patients are identified, there must be effective intervention. The special approach to geriatric syndromes and chronic diseases common to the elderly must be emphasized. There must be effective alternatives to hospitalization and institutional long-term care. (A forthcoming issue of this 2-part article will discuss such strategies.)

REFERENCES

1. Hayashida CT, Sherman S and Sasaki H. Adult Day Centers in Hawaii: Comprehensive Assessment for Strategic Planning for the 1990s. Kuakini Geriatric Cre, Inc.: Honolulu, Hawaii. December 1987.
2. Nordyke EC, Lee RKC and Gardner, RW. A Profile of Hawaii's Elderly Population. (Papers of the East-West Population Institute; no. 91; August 1984), pp 12.
3. Hayashida CT, Sherman S and Sasaki H. ibid.
4. Raetzman S. Reforming the Health Care System: State Profiles, 1990. Public Policy Institute, American Association of Retired Persons. Washington, DC. 1991, pp 34-36.
5. Hawaii Health Care Association. Special Report on Hospital-based Waitlisted Patients, 1990. Honolulu, Hawaii.
6. Hawaii State Health Planning and Development Agency. Health Services and Facilities Plan for the State of Hawaii, 1986. Honolulu, Hawaii. Chapter 8 - Long-term Care. pp 8-1 to 8-41.
7. Executive Office on Aging. Financing Long-term Care: A Report to the Hawaii State Legislature. Honolulu, Hawaii. January 1991, pp 2-2 to 2-5.

■

These Glorious Golden Years!

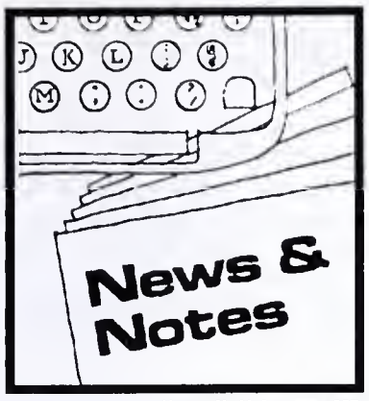
Remember, old folks are worth a fortune,
with silver in their hair, gold in their teeth,
stones in their kidneys, lead in their feet,
and gas in their stomachs.

I, myself, have become a little older since I saw you last,
and a few changes have come into my life since then.
Frankly, I have become quite a frivolous old gal.
I am seeing five gentlemen every day!

As soon as I wake up, Will Power helps me to get out of bed.
Then I go to see John. Soon, Charley Horse comes along, and,
when he is here, he takes a lot of time and attention.
When he leaves, Arthur Ritis shows up and stays the rest of the day. He doesn't like to stay in one place very long, so he takes me from joint to joint. After such a busy day, I'm really tired and glad to go to bed with Ben Gay! What a life!

P.S. — The preacher came to call the other day.
He said at my age I should be thinking about the hereafter.
I told him, "Oh, I do, all the time. No matter where I am —
in the parlor, upstairs, in the basement — I ask myself,
'What am I here after?'"

Lillian Schwartz
Kukui O Pohai Nani



Henry N. Yokoyama MD

Life in These Parts ...

Of Dogs and Men

"How's your health these days," we inquired of Dennis Meyer who had missed several Friday morning medical conferences. "My dog and my son are out of bounds," Danny replied. It seems that Danny had returned from a 4 am emergency call on the day after New Year's. As he groped in the dark, he tripped over his dog, apparently a large animal that blended perfectly with the bedroom rug. (The Meyer family had burned their firecrackers late one day and their dog had taken refuge in the master bedroom.) "I could have landed on my face, so I instinctively rolled, a perfect Olympic 10." "A Judo fall, eh?" "No, it was on the wrong side ... I was in the air and the thought crossed my mind ... Shoot! Three days of ice and traction. And that's what happened ... I ripped my back muscles." We both grimaced. (Well, his son? It seems that after Denny recovered from his back injury, his son gave him the flu.)

* * *

QUOTABLES ... Infectious disease specialist Dick Frankel was the CPC discussant on February 14. He apologized: "This being Valentine's Day, you can shoot at the speaker's heart should he miss the diagnosis ..."

* * *

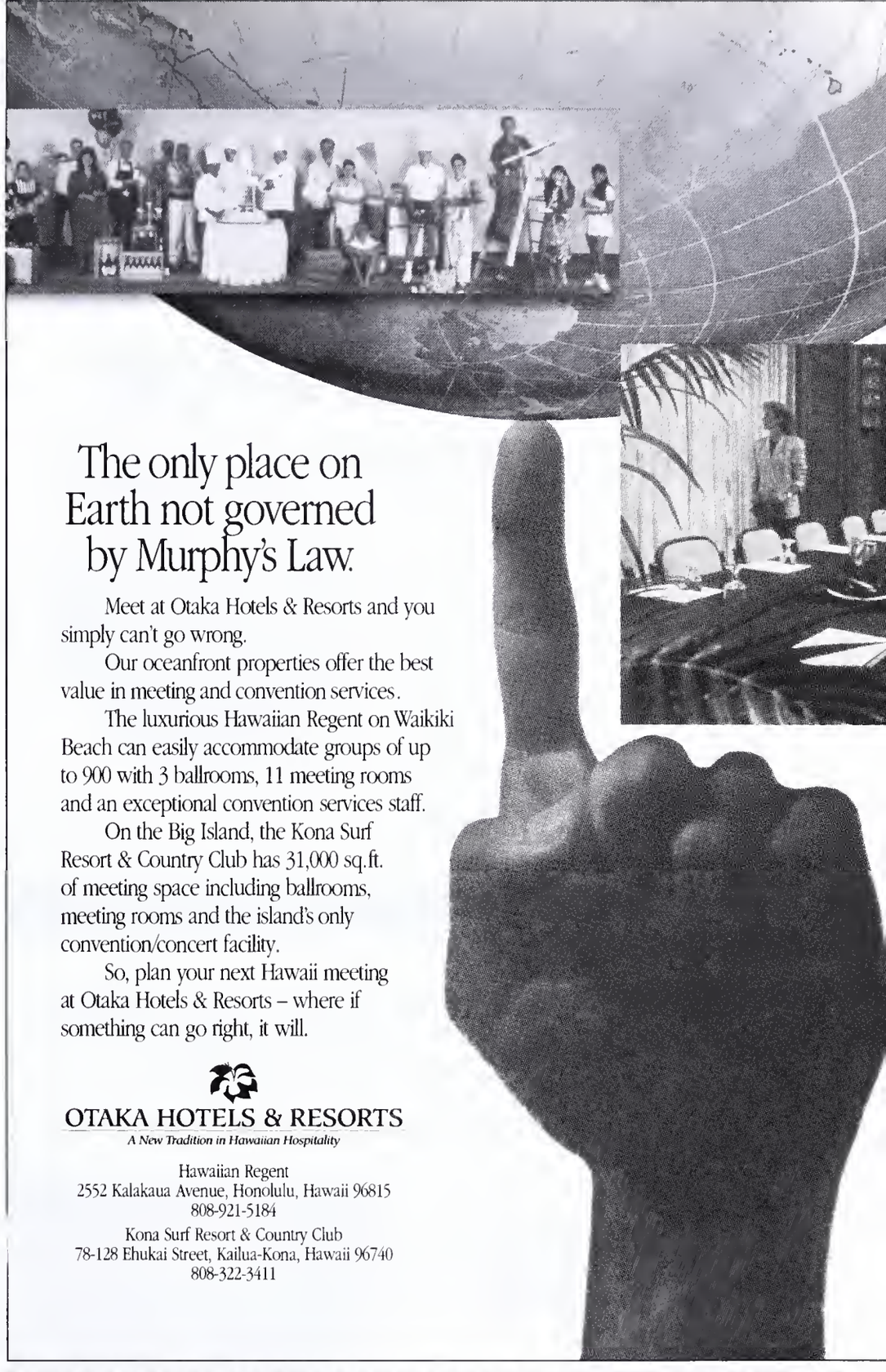
Second Opinion

Scene: Mid Pac CC 11th hole on a February Saturday afternoon. We overhead pathologist Art Salcedo remind urologist Masaru Koike: "Masa, I have an appointment with you next week." We teased, "Better do a 2-finger rectal — he may want a second opinion." Art good-naturedly enjoined, "Yeah, you can bill Medicare for the second opinion."

Oncology Dialogue

A 58-year-old, 60-pack-year oriental man saw his PMD for cough and was treated with antibiotics. A month later, he suddenly developed Lt-sided clumsiness and weakness and was admitted for workup. A family history revealed that both parents and 2 brothers had died of cancer. A resident picked up a left hemianopsia.

(Continued) ➤





BAIK Designs
INDONESIAN IMPORTS
Bali, Borneo, Lombok...
Discover the magic of the Spice Islands in distinctive furniture, ikats and art. Quality craftsmanship at tempting prices.
Visit our showroom upstairs from Angelica's Cafe
(808)524-2290
Gentry Pacific Center, 560 N. Nimitz Hwy.
Suite 201, Design Center
Hours: Mon–Sat 10–2 or by appointment

THE QUEEN'S MEDICAL CENTER

VICE PRESIDENT
MEDICAL STAFF SERVICES

The Queen's Medical Center is seeking qualified physician candidates for the position of Vice President, Medical Staff Services. Applicants should contact the Office of the President at **547-4423** for further information.

If your patient's health comes first. Where does your business health come?

For timely news you can use...

PACIFIC BUSINESS NEWS

Every Monday since March 18, 1963

Pacific Business News
P.O. Box 833
Honolulu, Hawaii 96808

Bill
❑ Company
❑ Me

Charge to my
❑ Mastercard ❑ Payment Enclosed
❑ Visa
❑ Discover Card

❑ 1 Year $43
❑ 3 Years $95
(Within Hawaii Only)

Card No. _____ Exp. Date _____

_____
Signature (required for charge order)

Name _____

Title _____

Company Name _____

Type of Business _____

Address _____

City _____ State _____

Zip _____ Phone _____

First Class & Foreign rates on request.
(808) 521-0021

NEWS AND NOTES
(Continued from page 105)

Radiologist Howard Arimoto described CT scans showing a 6¼ cm² RLL mass and mets to skull, rib cage and spine confirmed by nuclear med specialist Michael Ling's nuclear imaging. Pathologist Larry McCarthy described biopsies of the RUQ and RLL tumors as "foci of subepithelial small cell Ca, poorly differentiated with mitotic figures."

Moderator Ken Sumida asked, "Dr Furuike, can you give us some hints on risk factors and presenting symptoms for small cell Ca?" Pulmonologist Al Furuike was concise: "The symptoms are those of a rapidly growing tumor with extensive mets. The main risk factors are smoking and radiation. Lesser factors include exposure to asbestos and industrial gases." Ken added, "In my residency, I was told that if there were no smoking history, the tumor was not small cell Ca." Pathologist Grant Stemmerman added epidemiologic data: "The Japanese as a group, given the same cigarette consumption, have half the incidence of lung Ca. It must be genetic and related to some tumor-suppressing factor absent in some families."

Ken turned to oncologist Carl Higuchi: "How about chemotherapy?" Carl painted a dismal picture for small cell Ca. "The survival is less than 2 months without treatment and 7 to 11 months with treatment." Ken: "How about prophylactic cranial radiation in patients with limited disease?" Carl: "Even prophylactic cranial radiation with chemotherapy in a patient with limited disease is controversial." Ken elucidated further: "In patients over 65, cranial radiation is contraindicated because of the high incidence of dementia. Limited disease is when the cancer is intrathoracic and extensive disease when the cancer is extrathoracic. So, should we try to pick up early disease with diagnostic surveys?" Al Furuike was not enthused: "Early diagnosis is a matter of luck."

Cancer surgeon Scott Hundahl contributed one of his gems: "I reviewed the literature recently. In the early days, all lung cancers were treated surgically ... Small cell Ca in the lung periphery behaves differently, as a limited disease, so in a limited subset, there still may be a role for surgery. In older series, it was surgery, then chemo. In recent studies, it is chemo, then surgery..."

Eugene Matsuyama asked if there were any correlation with high ethanol consumption and smoking. Ken turned to Stemmy: "Perhaps with squamous cell Ca?" Stemmy: "No." Scott added an aside: "I read a recent article that claimed drinking green tea and smoking had less lung Ca. Perhaps it was written by some tea growers association in Japan." Stemmy: "We've studied green tea and black tea and found no correlation with lung Ca."

(Continued on page 109) ➤

Roche Laboratories presents the winners of the 1991

ROCHE

PRESIDENT'S ACHIEVEMENT AWARD

Please join us in honoring these outstanding Roche sales representatives who have distinguished themselves by a truly exceptional level of professionalism, performance and dedication to quality health care.

Throughout the year, each of these award-winning individuals has consistently exemplified the Roche Commitment to Excellence, and we're proud to invite you to share in congratulating them on their achievement.



Susan M. Rice

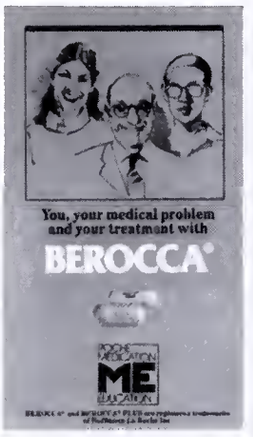
Turn the page to see one of the many ways your award-winning Roche representative can assist you and your patients.

COMMITTED TO TOTAL HEALTH CARE

Roche Laboratories presents the Resource Library for patient information

ROCHE ME MEDICATION EDUCATION



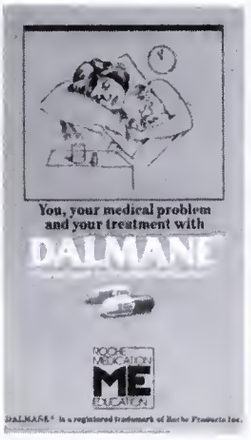


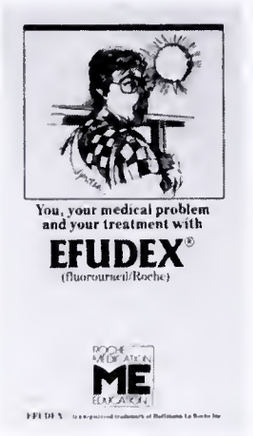
Your Roche representative offers you access – without expense or obligation – to a comprehensive library of patient information booklets designed to supplement rather than supplant your rapport with your patients.

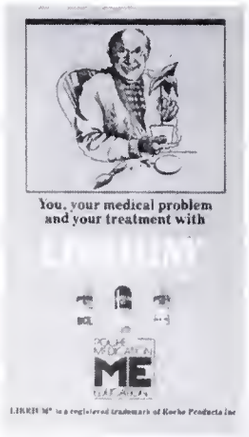
Each booklet helps you provide...

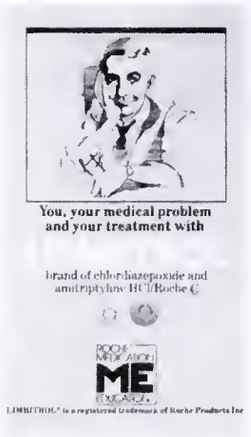
- Reinforcement of your instructions
- Enhancement of compliance
- Satisfaction with office visits

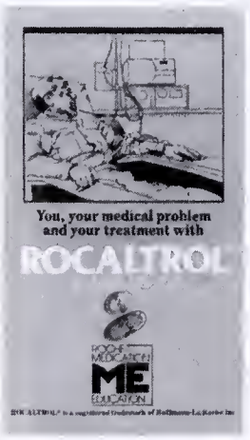
Your Roche representative will be happy to provide a complete catalog of available booklets and complimentary supplies of those that are applicable to your practice.



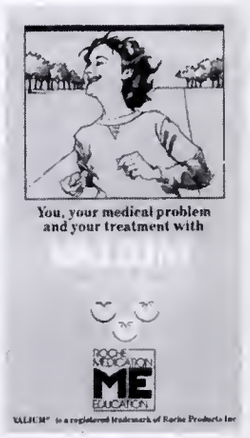












(Continued from page 106)

Conference Notes

Visiting professor Peter Lipsky from University of Texas spoke about rheumatoid arthritis on January 24 at Mabel Smyth.

Rheumatoid arthritis: a. 80% have significant deformity, b. Treat early because most of the loss of function occurs the first year.

Diagnosis of RA:

Is it Arthritis?	
+	—
Articular	Nonarticular (Fibrositis or fibromyalgia)
Inflammatory	Noninflammatory
Systemic	Asymptomatic: Seronegative Spondyloarthropathy
<2 months	>2 months (RA or other connective tissue damage

Fibrositis: a. Trigger points, b. Pain in soft tissue, c. Non-restful sleep

Articular: a. Inflammatory — High C-Reactive protein and high sed rate

RA: Almost always symmetrical

< 2 months	> 2 months
Viral Infection	Rheumatoid Arthritis
Drug Reaction	Other connective tissue disease

Treatment of RA:

a. Therapy is empiric; based on clinical experience and not on pathophysiologic or pharmacologic principles.
b. Relationship between drug action and disease process is unclear:
   1. Relevant drug action is often unclear
   2. Pathophysiology of the disease evolves
c. No major impact of therapy on progression to deformity.

Drugs and Agents

	NSAID	Slow-Acting Agents
Anti-inflammatory	Prominent	Minimal
Onset Action	Intermediate	Delayed
Effect on Acute Phase	Minimal	Neutralization
Effect on Bone Erosion	None	Minimal
Effect on Natural Hx of Dis	None	None

*In some individuals, NSAIDs have more profound effect.

Traditional approach: Start with NSAIDs and then use slow-acting agents. ■

PENSION HEADACHES?



GET THE CURE...

Are pension details giving you a headache? Call HICKS and get the cure. As third Party administrators of qualified retirement plans, HICKS offers complete support to accountants with consulting, documentation and administration for their clients.

Clients of HICKS enjoy complete discretion of trust assets while never having to worry about compliance issues or administration duties. With HICKS, all required Trust Accounting, Participant Allocations, Government Reporting (including IRS form 5500) and Plan Amendments are handled. And, with over 21 years of experience behind us, accountants enjoy the comfort of knowing their clients' plans are being handled by the best in the business!

So, if pension headaches are getting you down, call HICKS and get the cure!

*Self Trustee Plans
*Standardized Documents
*Plan Design and Amendment
*Actuarial Services
*In-House Continuing Education
*Training for Accountants
*Profit Sharing
*401(k) Profit Sharing
*Money Purchase Pension
*Target Benefit Pension
*Defined Benefit Pension
*125/Cafeteria Plans

HICKS. PENSION SERVICES

CPE

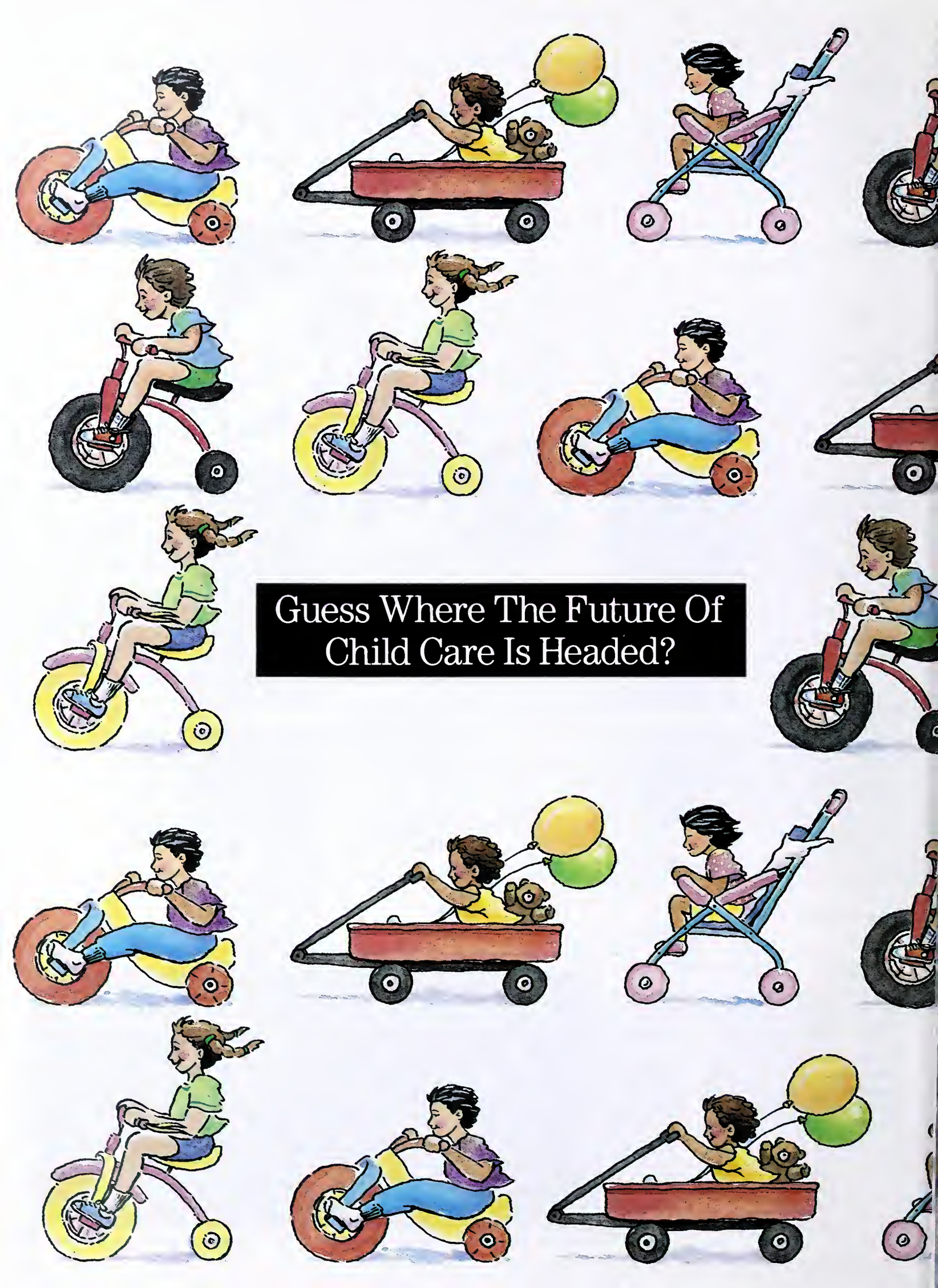
615 Piikoi Street • Suite 2020 • Honolulu HI 96814 • (808) 523-0144

Refinance Now With a *Choice* of Lenders

The time was never better to refinance your home to obtain a more favorable rate or to get cash for buying in fee or any other need. And remember, we have access to more than one lender so you are assured of getting the best rate.No broker fee. It's included in the points.

CALL NOW. THE TIME WAS NEVER BETTER.

Shim ANTHONY "BUSTER" SHIM
Mortgage broker
732-0707


Guess Where The Future Of
Child Care Is Headed?



We're building a whole new city here in Kapolei.

And soon Seagull Schools will be building an important part of it.

Seagull Schools plans to develop the state's largest child care center in the City of Kapolei. This 1.25 acre facility will provide care for up to 280 children.

Obviously, Seagull thinks Kapolei is a youngster with some real potential. Which isn't surprising when you consider that the population of West Oahu will increase by 200 percent in the next 20 years. Some of Hawaii's largest companies are building here. And Kapolei Shopping Center is scheduled for completion in 1993, with 28 tenants aboard and more on the way. While hundreds of new homes are under development throughout the area.

If you're looking for a place to grow, whether you're nurturing a business or a family, call us at 544-3224.

Because there are big reasons for moving to Kapolei. And lots of little ones, too.

The City of Kapolei

A New Direction

A development of The Estate of James Campbell.

Maka O Ka Kauka

Russell T. Stodd MD

Oh, how full of briers is this working-day world!

A mini-flap has developed in regard to the removal of pterygium at the time of cataract surgery. A petition was filed by an Oahu eye surgeon requesting payment, but after review by an HCMS physician panel (including an ophthalmologist), the procedure was deemed not reimbursable unless the pterygium had become obstructive to vision. Behind the public discussion, Medicare officials claim that this combined procedure occurs at a frequency of about 5% or less, but for a particular eye surgeon, the rate approaches 40 to 50%. Ah, the all-seeing, all-knowing, all-omniscient computer strikes again.

If it doesn't work, expand it.

Our State government only 2 years ago enjoyed a $500 million surplus. While it would seem appropriate to return a large measure of this to the taxpayers, our legislature chose not to do so. The product of their action was that the politicians found a way to spend the money by funding various programs, for example, a luxurious Capitol renovation. However, the rest is a fiscal nightmare because those programs funded during times of plenty become a terrible burden when revenues dry up. Thus, now the DOE cannot fund school repairs, cannot hire more teachers, and Oahu's sewage system is smelling up the north Pacific. The State hospitals have been put on a cash-only basis by suppliers due to unpaid bills. Additionally, public employee incomes have risen at 4 times the pace of pay in the private sector during the past decade. The "solution," — an additional tax called a LOTTERY!

There is no job so simple that it cannot be done wrong.

Today, thanks to men like Edison and Franklin, and frogs like Galvani's, we receive almost unlimited benefits from electricity. For example, in the past decade scientists developed the laser, an electronic appliance that emits a beam of light so powerful that it can vaporize a bulldozer 2,000 yards away; yet so precise that doctors can use it to perform delicate operations on the human eyeball, provided they remember to change the power setting from "VAPORIZE BULLDOZER" to "DELICATE." *(Dave Barry)*

If God created us in his own image, we have more than reciprocated.

To practice medicine in the last decade of the 20th century, hospitals, doctors, pharmacists, and other health care providers, have become inextricably tied to the computer. One major downside is that access to records is now all too easy. A company, Physician Computer Network, Inc., thinks its swelling data base of patient records will become a commercial treasure. An invisible new traffic in patients' private medical records, prescription records, and hospital data is alarming physicians and pharmacists. Patients with AIDS and other ailments are especially vulnerable to a breach of confidentiality. No doubt, ophthalmic prescriptions, number and type of IOL implants, plus age, sex and whatever of patients, these data are at the computer consoles of Alcon, Allergan, Zeiss, Storz, IntraOptics, Merck, etc, whenever desired, compliments of PCN and other hacker invaders. "Data is like a whore. It gets passed around from hand to hand, in spite of the rules."

The function of the expert is not to be more right than other people, but to be wrong for more sophisticated reasons.

Leaving behind a trail of confusion and controversy for Medicare recipients and physicians alike, HCFA Administrator Gail Wilensky is leaving the agency. In his perennial search for "yes persons," President George Bush has appointed Dr Wilensky to deputy assistant to the President for policy development. One of her jobs will be to advise the President on health care reform issues. In her place, Associate Administrator Robert Streimer will likely be the acting chief until a permanent agency head can be installed after the November election. No changes are expected in policies.

Aloha, and keep the faith.

rts

CLASSIFIED NOTICES

To place a Classified Notice, MEMBERS, please call Association Office at 536-7702. NON-MEMBERS, please call Leilani at 521-0021. 4 line min., approx. 5 words per line. Payment must accompany order.

SERVICES

WILL CONSIDER ALL OFFERS

AINA HAINA PROFESSIONAL BUILDING

1,064 sf turnkey previous medical ofc. & 837 sf ofc. space available. Lots of parking.

GREAT LOCATION

Carolyn Schnack Darrow (RA) 373-9644

CHINESE ACUPUNCTURE CLINIC

Exp. acupuncturist. HI lic. Wants referrals. Car acc., low back, work comp, stop smoking, lose wt.

1155 Maunakea St. 533-2498 LeAnne Chee

LOCUM TENENS PROVIDED

Internal Medicine and Family Practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS AVAILABLE

Family Practice, Pediatrics, Urgent Care.

No agency fees. Deal direct. 923-2981.

ATTENTION RADIOLOGISTS!!!

Been working too hard in paradise? Help is available!! Contact Sheryl North, M.D. for professional Locum Tenens. Call or write 5878 Bowcroft Street, #1, Los Angeles, CA 90016. 310-839-0733. Then relax while I work!

EMPLOYMENT OPPORTUNITY

POSITIONS AVAILABLE

Physician Placement Hawaii has openings for physicians & other medical professionals all across the U.S. Mainland as well as here in Hawaii. We also have candidates interested in a Hawaii position. Call Earl Pajari at 395-7099.

REAL ESTATE

MANOA

Best street. 4 bd., 3 ba. Divorce forces sale. Gaylyn Li-Ma 530-1266 (pager) 946-0646

$$ HIGH YIELDS- LOW RISK $$

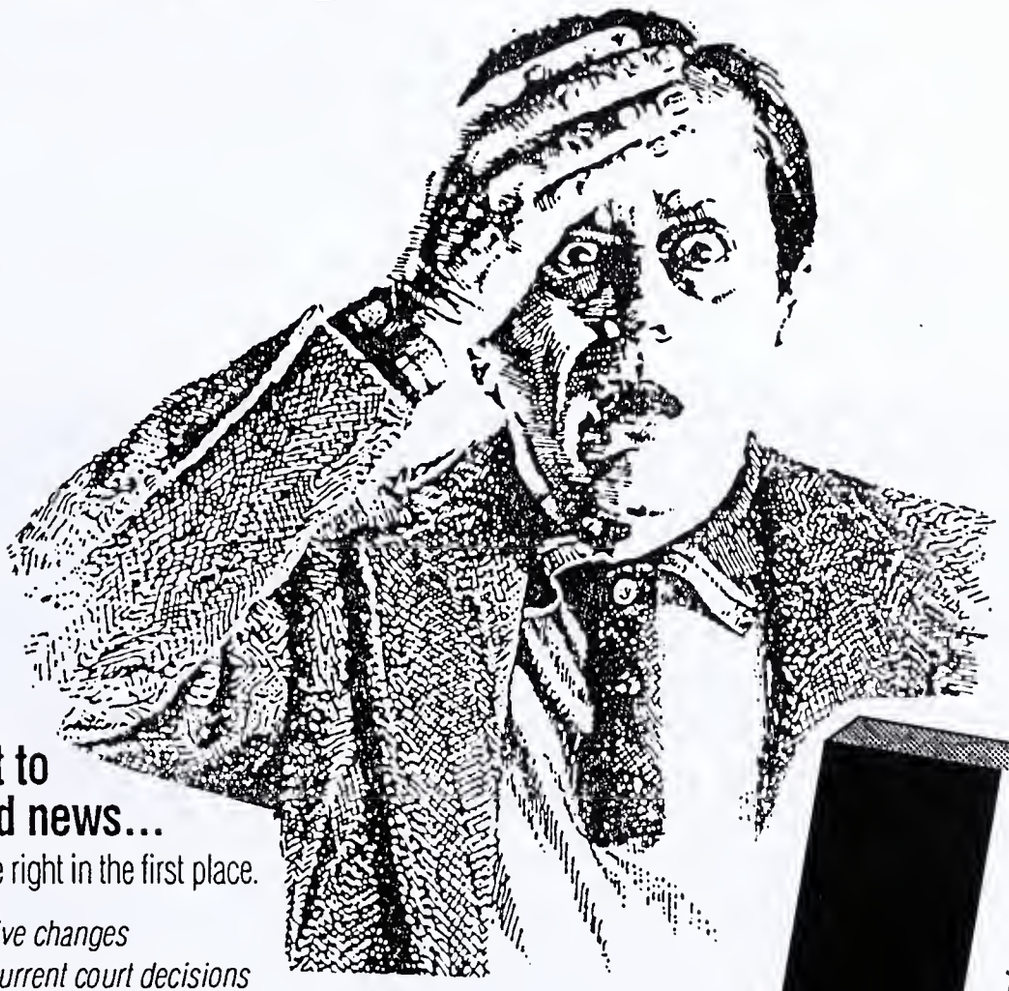
Real Estate Mortgages available for investment from 25K to 250K. Yield 3x - 5x bank CD rate depending on term & risk. Call Bob or BC at Hawaii Federal Mortgage (942-5626) to receive our newsletter.

$$$ THE LOAN ARRANGERS $$$

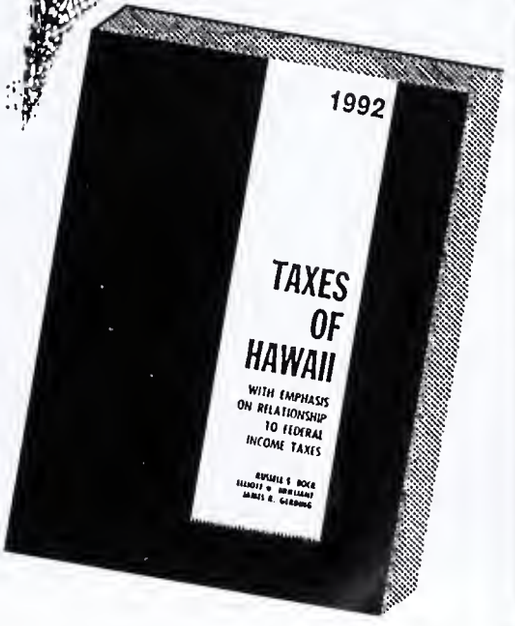


Aloha United Way

"The State Tax Office called while you were out"



29th Annual Edition



Don't wait to get the bad news...

Get the job done right in the first place.

- *1991 legislative changes*
- *Updated for current court decisions*
- *Tax tables and withholding tables*
- *Updated for current Tax Department releases*

1 to 9 copies	$18.00 each
10 to 24 copies	$17.40 each
25 to 39 copies	$16.50 each
40 or more copies	$15.95 each

Quantity Rates apply only when ordered at one time and subject to a single payment.

$18.00 *each*
Postage and Tax included

Published by: Crossroads Press Inc. P.O. Box 833 Honolulu, HI 96808

Crossroads Press, Inc.
P.O. Box 833
Honolulu, HI 96808

$18.00 *each– post paid*
(1st class add $1.80 per copy)

Enclosed is $_____
for ____ copies of the 1992 edition of Taxes of Hawaii.

Payable to: CROSSROADS PRESS, INC.

☐ VISA ☐ MASTERCARD ☐ DISCOVER CARD

Card Number _____ Expiration Date

Signature required for charge orders

Name

Company

Address

City State Zip Phone

Let us handle your pension plan and you could get 102 years.



Our people each have more experience than some banks have in their entire trust departments.

So when you bring your company pension or profit-sharing plan to First Hawaiian, you'll get managers who can answer your questions. Who know the importance of keeping you up to date with accurate, timely records. And who provide unsurpassed money management.

Clearly, our employees feel we're worth a long stay. So might you.

We invite you to call our Trust Employee Benefits Department at 525-7110 in Honolulu today. From the neighbor islands you may call collect.

First Hawaiian Bank
The Answer is Yes.

Journals
W1
HA
968

MAY 1992
VOL. 51, No. 5
ISSN: 0017-8594

Hawaii Medical Journal

CONTENTS

HMA COUNCIL HIGHLIGHTS 118

LETTER TO THE EDITOR 118

MASSIVE PULMONARY EMBOLISM PRESENTING AS DISSEMINATED INTRAVASCULAR COAGULATION 121
William T Hart MD
Carl P Hallenborg MD

HUMAN HEMATOPOIETIC GROWTH FACTORS 126
Amy Matayoshi
Jeffrey M Nakamura MD (posthumously)

INDEX TO THE HAWAII MEDICAL JOURNAL VOL 50, 1991 136

NEWS AND NOTES 140
Henry N Yokoyama MD

MAKA O KE KAUKA 145
Russell T Stodd MD

U OF CALIFORNIA-SF
LIBRARY
SERIALS DEPT, BOX 0840
530 PARNASSUS AVE
SAN FRAN, CA 94143-0840

Hawaii Medical Journal
UCSF LIBRARY
Received on: 05-27-92



In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively

Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

Hawaii Medical Journal

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor: J I FREDERICK REPPUN MD
Founding Editor: HARRY L ARNOLD JR MD
News Editor: HENRY N YOKOYAMA MD
Contributing Editors: STEPHEN RPK BRADY MD, FRANCIS H FUKUNAGA MD,
Editorial Assistant: DAISY CANITE
Publisher: STEPHEN S LENT

Editorial Board
NORMAN GOLDSTEIN MD
ROBERT TS JIM MD
JAMES LUMENG MD
FRANCIS D PIEN MD

Publications Committee: MYRON E SHIRASU MD (Commissioner)
HENRY N YOKOYAMA MD (Chairman)
ERLAINE BELLO MD, STEPHEN RPK BRADY MD, NADINE BRUCE MD, NATHANIEL PH CHING MD, OSAMU FUKUYAMA MD, ROBERT C GALAGAN MD, FRED GILBERT JR MD, ROBERT HOLLISON MD, AMOD JAIN MD, ROBERT TS JIM MD, JOHN HC KIM MD, H LORRIN LAU MD, JAMES LUMENG MD, BAL RAJ MEHTA MD, FRANCIS PIEN MD, J I FREDERICK REPPUN MD, MYRON E SHIRASU MD, KIM THORBURN MD, RONALD J WONG MD, TERRY CY WONG MD, GUY N YATSUSHIRO, STEPHEN J WALLACH MD
GWEN FU (HMA Auxiliary)

OFFICERS
President: STEPHEN J WALLACH MD
President-Elect: JEANETTE HJ CHANG MD
Past President: JOHN T MCDONNELL MD
Secretary: ANDREW DON MD
Treasurer: JOHN S SPANGLER MD

County Presidents
Hawaii: RICHARD KM LEE-CHING MD
Honolulu: CALVIN YH WONG MD
Kauai: LARRY MAGNUSSEN MD
Maui: LEONARD H SAKAI MD
West Hawaii: MINOLU R CHENG MD

Delegates to AMA
CALVIN CM KAM MD
RUSSELL T STODD MD
Alternate Delegates to AMA
STEPHEN J WALLACH MD
JOHN T MCDONNELL MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237-640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Non-member subscriptions are $18. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Printed in U.S.A.

The Backworks Difference...



"Self-Management"

Learning to use pain as biofeedback in selecting appropriate posture and movement.

456-7077
945 Kamehameha Hwy.
Pearl City, Hawaii 96782

BACKWORKS HAWAII Inc.

Active, Progressive Physical/Occupational Therapy

Nightingales Uniform Company

INTRODUCES

PROTECTIVE FLUID RESISTANT APPAREL

(REUSABLE)

With the changes in OSHA regulations,
Nightingales Uniform Company would like to make the change an affordable and easy one.
We offer excellent Group Discounts, and carry lines by:

LANDAU
FASHION SEAL

Give us a call and we will send a representative to you.
or
Stop in our store, *Nightingales* carries a wide range of uniforms, shoes, and accessories. Top name brands:

CREST, NURSEMATES,
CHEROKEE, GALS, PRN

***SEE OUR AD IN THE YELLOW PAGES FOR MORE INFORMATION AND MAP.

488-7935
(Behind Cutter Ford in Aiea)

Highlights of the HMA Council Meeting of April 10, 1992

The highlights of the meeting follow. Those present were: S Wallach, J Chang, A Don, J Spangler, J McDonnell, R Stodd, L Sakai, R Matsubara, M Cheng, P DeMare, P Blanchette, HH Chun, R Kimura, HKW Chinn, M Shirasu, C Kadooka, R Goodale, J Betwee, H Percy, T Smith, G Goto, J Lumeng, WWY Chang, and WM Dang. Also present were: Mrs S Foo and Mrs M Lau - Auxiliary; F Reppun - Editor, HMJ; V Woo - Legal Counsel; WWL Dang, N Kaneshiro - medical student and guest W Foo. HMA staff present were: J Won, N Jones, B Kendro, J Asato, J Estioko, L Tong, P Kawamoto, L Funai, and M Lindsey - recording secretary.

HMA Auxiliary Immediate Past President Maureen Lau recommended that HMA and HMA Auxiliary "Adopt a Highway" to keep America clean. The recommendation was approved by the Council.

The 1993 HMA Annual Meeting will be held at the Ritz Carlton Hotel at Kapalua, Maui. In 1994, the site for the HMA Annual Meeting will be the Ritz Carlton Maunalani, on the Big Island. The $100 registration fee for HMA members attending the HMA Annual Meeting was approved. This fee will include two tickets to the Presidential Inauguration Dinner as well as other amenities.

The Council approved the recommendation from the Medical, Moral, Ethical and Legal Concerns Committee that a better defined process be developed for the home setting of a patient regarding resuscitation. This should incorporate discussions between the patient, family, and care givers so that all are clear before the critical patient is transferred to a hospital where the need to document "Resuscitate/Do Not Resuscitate" orders are required. On the basis of a consensus within that family group that is documented, eg on a wallet card, emergency medical teams will have better guidelines and will be less frustrated when it comes to making decisions.

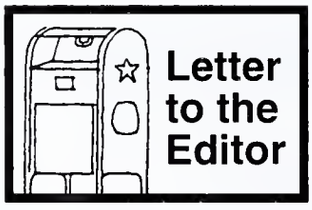
The Council approved sponsorship of "Play-It-Safe" coloring books and calendars for children in schools.

The Council also supported the "Career Shadowing" program at McKinley High School that will assist the transition from school to the workplace. This program, developed by the State departments of Labor and Industrial Relations and Education, is asking physicians to participate. If you are interested in participating, please contact HMA.

A framed "Lei of Aloha to All Physicians" ad that appeared in the Sunday *Star-Bulletin* and *Advertiser* on Doctors' Day, was presented to HMA by Maureen Lau.

The HMA auxiliary is vigorously campaigning in Hawaii against "True Crimes" collectible cards. They have generated media coverage and the support of the Board of Education.

Andrew Don MD
Secretary



The Marimed Foundation has announced $136,000 in new corporation and foundation gifts and pledges for its new Ocean Skills and Education Program for Hawaii Youth.

The funding was committed by 12 Hawaii corporations and foundations: $40,000 from the Robert E Black Memorial Trust of the Hawaii Community Foundation, $26,000 from the Bank of Hawaii, $15,000 from District 5000 (Hawaii) Rotary Clubs, $10,000 from the Fred Baldwin Memorial Foundation, $7,500 from the McInerny Foundation, $7,500 from the Teresa F Hughes Trust Estate, $7,000 from the Pohaku Fund, $5,000 from *The Honolulu Advertiser,* $5,000 from Gwenfread Allen Foundation, $5,000 from the GN Wilcox Trust, $5,000 from the Atherton Family Foundation, and $3,000 from the Elsie H Wilcox Foundation.

These gifts were in addition to $100,000 previously committed for 1992 for the youth programs from the School of the Pacific Islands of Thousand Oaks, Calif. Marimed also received a $150,000 grant-in-aid from the Hawaii State Legislature for 1991-92.

Marimed Foundation's Ocean Skills and Education Program for Youth is a comprehensive program of marine-based experiential or hands-on education, skills building, tracking and support. It is available for all Hawaii and Marshallese youths, ages 14 to 18, both male and female, and emphasizes leadership development and community service. The program is conducted on board Marimed's tallship *Tole Mour,* a 156-foot, 3-masted, square-topsail schooner, in conjunction with Marimed's ongoing health work in the Marshall Islands.

(Continued on page 120) ➤

For the many faces of mild hypertension

MILD



THE MOST WIDELY USED CALCIUM ANTAGONIST AS MONOTHERAPY FOR MILD HYPERTENSION[1]*

- Effective 24-hour control[2]
- Single-agent efficacy
- Well tolerated†
- No adverse effects on total cholesterol, plasma glucose levels, renal function,‡ or serum electrolytes[3-6]

ONCE-DAILY
Calan® SR
verapamil HCl
180 mg
SUSTAINED-RELEASE CAPLETS
240 mg

For the many faces of mild hypertension

*The recommended starting dose for Calan SR is 180 mg once daily. Dose titration will be required in some patients to achieve blood pressure control. A lower initial starting dosage of 120 mg/day may be warranted in some patients (eg, the elderly, patients of small stature). Dosages above 240 mg daily should be administered in divided doses. Calan SR should be administered with food.

†Constipation, which is easily managed in most patients, is the most commonly reported side effect of Calan SR.

‡Verapamil should be administered cautiously to patients with impaired renal function.

References: 1. Data on file, Searle. 2. Edmonds D, Würth JP, Baumgart P, et al. Twenty-four-hour monitoring of blood pressure during calcium antagonist therapy. In: Fleckenstein A, Laragh SH, eds. *Hypertension—the Next Decade: Verapamil In Focus.* New York, NY: Churchill Livingstone; 1987:94-100. 3. Midtbø KA. Effects of long-term verapamil therapy on serum lipids and other metabolic parameters. *Am J Cardiol.* 1990;66:131-151. 4. Fagher B, Henningsen N, Hulthén L, et al. Antihypertensive and renal effects of enalapril and slow-release verapamil in essential hypertension. *Eur J Clin Pharmacol.* 1990;39(suppl 1):S41-S43. 5. Schmieder RE, Messerli FH, Garavaglia GE, et al. Cardiovascular effects of verapamil in patients with essential hypertension. *Circulation.* 1987;75:1030-1036. 6. Midtbø K, Lauve O, Hals O. No metabolic side effects of long-term treatment with verapamil in hypertension. *Angiology.* 1988;39:1025-1029.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol and propranolol clearance may occur when either drug is administered concomitantly with verapamil. A variable effect has been seen with combined use of atenolol. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Verapamil may inhibit the clearance and increase the plasma levels of theophylline. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. There was no evidence of a carcinogenic potential of verapamil administered to rats for 2 years. A study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes, reversible non-obstructive paralytic ileus. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, galactorrhea/hyperprolactinemia, increased urination, spotty menstruation, impotence.

4/11/91 • P91CA6277V

Address medical inquiries to:
G.D. Searle & Co.
Medical & Scientific Information Department
4901 Searle Parkway
Skokie, IL 60077

© 1992 Searle

A92CA6694T

SEARLE

G.D. Searle & Co.
Box 5110, Chicago, IL 60680

Youth participants either make passages on *Tole Mour* between Hawaii and the Marshall Islands (Ocean Voyage Program), or accompany the health teams on board the ship in the outer Marshall Islands, assisting health workers and engaging in community service projects while receiving vocational and life skills training (Island Service Program). Approximately, 160 boys and girls (24 at a time), half from Hawaii and half from the Marshall Islands, participate annually in the program. The month-long shipboard experiences are followed by one year of tracking and support, including vocational training and job placement.

Commenting on these new gifts and pledges, David Higgins, president of Marimed, said, "These corporate and foundation contributions are critical to Marimed because they reflect the commitment of Hawaii's private sector to support an innovative ocean-based youth program encouraged and supported by both the Governor's Office of Youth Services and the State Legislature. It is only with both private and public sector support that this vital new program serving Hawaii's youth can succeed."

Approximately $125,000 still must be raised from private sources for the 1992 program. For more information about Marimed Foundation's Ocean Skills and Education Program for Youth, contact: Marimed Foundation, 1050 Ala Moana Boulevard, Building D; Honolulu, Hawaii 96814; telephone 537-5586; fax 526-9736.

Ron Olmstead

The Editor replies:

As a supplement to the article in the March 1992 issue of the *Journal,* this directive from Ron Olmstead brings good news to a Hawaii-based philanthropical and educational enterprise of which Hawaii in the Pacific can be proud.

J I Frederick Reppun MD
Editor



"If you can't do without the snacks between meals, try eliminating the meals between snacks."

CONFERENCE CONNECTIONS

Put your meeting on the line with our new teleconference service.



- New, state-of-the art equipment and technology
- Quality voice transmission
- 24-hours a day Operator service
- Worldwide coverage
- Full range of conference services
- New Meet-Me call in conference service
- Operator Dial-Out service to most locations

A teleconference is easy as picking up your phone.
Call 643-CONF (643-2663) for information and reservations.

GTE Hawaiian Tel

Beyond the call

Massive pulmonary embolism presenting as disseminated intravascular coagulation

William T Hart MD*
Carl P Hallenborg MD**

Disseminated intravascular coagulation (DIC) can be defined as evidence of activation of the coagulation mechanism resulting in proteolysis of fibrinogen by thrombin and plasmin and an acute thrombocytopenia.

The association of pulmonary embolism (PE) with DIC has recently been reported but in reviewing recent textbooks of hematology, there is no mention of PE as a cause of DIC[1,7].

Clinicians need to be made aware of this association since it affects the patient who is thought to be autoanticoagulated as well as the patient who has DIC of unknown cause. PE needs to be included in the differential diagnosis of an autoanticoagulated state and in DIC of unknown etiology. In both instances the recommended treatment is full-dose intravenous heparin therapy[1,5,7].

Pulmonary embolism accounts for an estimated 300,000 hospitalizations and as many as 50,000 deaths annually[6]. Despite advances in diagnostic imaging it may go undetected until postmortem examination. Recognition of the association between DIC and pulmonary embolism may enhance the accuracy of the clinical diagnosis.

We report 2 cases of an unusual presentation of a massive PE and DIC.

* Chief Medical Resident
Department of Medicine
John A Burns School of Medicine

** Chief, Pulmonary Division
Department of Medicine
John A Burns School of Medicine

Presented at the American College of Physicians, Hawaii Scientific Meeting, March 15, 1991.

Address correspondence to:
William T Hart MD
Division of Pulmonary and Critical Care Medicare
Department of Medicine
Stanford University Medical Center
Stanford, CA 94305-5236

Received for publication May 17, 1991.

Case reports

Case 1

A 47-year-old Japanese man complained of a sudden onset of shortness of breath, hemoptysis and near loss of consciousness. Twelve days earlier he had undergone coronary artery bypass grafting.

He was known to have had diabetes mellitus and hypertension. Physical examination revealed left lung-field crackles. The admission chest roentgenogram demonstrated a small left pleural effusion. Laboratory tests were remarkable for thrombocytopenia. On arterial blood gas analysis, he had a widened A-a gradient.

A pulmonary angiogram demonstrated multiple bilateral pulmonary emboli. The patient subsequently developed bleeding into the thigh, thrombocytopenia, and other coagulation abnormalities. Fibrin split products (FSP) were increased, resulting in a decrease of the fibrinogen level. A bone-marrow aspiration was read as normal. A diagnosis of DIC was made. The patient recovered after treatment with full heparinization.

Case 2

An 80-year-old Caucasian woman with a history of steroid-dependent chronic obstructive pulmonary disease was admitted to hospital for treatment of *Pseudomonas pneumonia.* CBC and platelets were normal at admission.

Her medical history was also notable for congestive heart failure. Physical examination revealed dyspnea without cyanosis. The patient had a prolonged hospital course due to persistent weakness and shortness of breath. Primary hyperthyroidism was then diagnosed. An acute anemia developed. FSP were increased and the fibrinogen level was decreased. Acute thrombocytopenia developed and DIC was diagnosed. Heparin was not instituted given the presence of hematologic abnormalities. The patient died and at autopsy a massive, saddle, pulmonary embolus was found completely occluding both right and left lungs.

Discussion

Case 1 clinically illustrates DIC associated with a pulmonary embolus. Specifically, there was an acute thrombocytopenia and evidence of activation of the coagulation mechanism resulting in proteolysis of fibrinogen by thrombin and plasmin. This is the definition of DIC[7].

(Continued on page 125) ➤

THE LEASE THAT'S ULTRA SOUND.



To stay in sound financial health, many hospitals lease their equipment through Bancorp Leasing. To chart one—Straub Clinic and its new Cardiac Ultrasound Machine, a critical heart monitoring unit in Straub's state-of-the-art Cardiac Cath Lab.

The prognosis? Bancorp Leasing is doing well with its competitive rates, flexible terms, professional service.

Whether you need a $10,000 computer or diagnostic equipment a hundred times that, give Bancorp Leasing a call at 537-8810. On the Neighbor Islands, 1-800-451-6022.

Bancorp Leasing of Hawaii

The ACCUPRIL Single-Agent Commitment™

Parke-Davis is confident that for many of your hypertensive patients ACCUPRIL will achieve the decrease in blood pressure you expect.

If, in your medical judgment, your patient requires a diuretic in addition to ACCUPRIL at any time during ACCUPRIL therapy, Parke-Davis will refund your patient's cost of the diuretic.*†



New!

ONCE-A-DAY ‡

ACCUPRIL® ™

quinapril HCl tablets 10, 20, 40 mg

* See DOSAGE AND ADMINISTRATION section of prescribing information.

† If, after an adequate trial of ACCUPRIL alone, based on your medical judgment as the prescribing physician, you determine that your patient requires the addition of a diuretic, Parke-Davis will refund to the patient his/her cost for the diuretic prescription less any amount reimbursed or paid for by an HMO, insurance company, or any other plan or program.

For more details, ask your Parke-Davis Representative or call 1-800-955-3077.

‡ In some patients, the antihypertensive effect may diminish toward the end of the once-daily dosing interval. In such patients, an increase in dosage or twice-daily administration may be warranted.

ACCUPRIL is available in 10, 20, and 40 mg tablets. Usual initial starting dosage is 10 mg once daily.

ACCUPRIL is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Please see brief summary of prescribing information on following page.

© 1991 Warner-Lambert Company

PARKE-DAVIS

Accupril® (Quinapril Hydrochloride Tablets)

Before prescribing, please see full prescribing information. A brief summary follows.

INDICATIONS AND USAGE

ACCUPRIL is indicated for the treatment of hypertension. It may be used alone or in combination with thiazide diuretics.

In using ACCUPRIL, consideration should be given to the fact that another angiotensin-converting enzyme (ACE) inhibitor, captopril, has caused agranulocytosis, particularly in patients with renal impairment or collagen vascular disease. Available data are insufficient to show that ACCUPRIL does not have a similar risk (see WARNINGS).

CONTRAINDICATIONS

ACCUPRIL is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

WARNINGS

Angioedema: Angioedema of the face, extremities, lips, tongue, glottis, and larynx has been reported in patients treated with ACE inhibitors and has been seen in 0.1% of patients receiving ACCUPRIL. Angioedema associated with laryngeal edema can be fatal. If laryngeal stridor or angioedema of the face, tongue, or glottis occurs, treatment with ACCUPRIL should be discontinued immediately, the patient treated in accordance with accepted medical care, and carefully observed until the swelling disappears. In instances where swelling is confined to the face and lips, the condition generally resolves without treatment, antihistamines may be useful in relieving symptoms.

Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, emergency therapy including, but not limited to, subcutaneous epinephrine solution 1:1000 (0.3 to 0.5 mL) should be promptly administered (see ADVERSE REACTIONS).

Hypotension: Symptomatic hypotension was rarely seen in uncomplicated hypertensive patients treated with ACCUPRIL but, as with other ACE inhibitors, it is a possible consequence of therapy in salt/volume depleted patients, such as those previously treated with diuretics or dietary salt restriction or who are on dialysis (see PRECAUTIONS, DRUG INTERACTIONS, and ADVERSE REACTIONS). In controlled studies, syncope was observed in 0.4% of patients (N = 3203); this incidence was similar to that observed for captopril (1%) and enalapril (0.8%).

In patients with concomitant congestive heart failure, with or without associated renal insufficiency, ACE inhibitor therapy may cause excessive hypotension, which may be associated with oliguria or azotemia and, rarely, with acute renal failure and death. In such patients, ACCUPRIL therapy should be started at the recommended dose under close medical supervision. These patients should be followed closely for the first 2 weeks of treatment and whenever the dosage of antihypertensive medication is increased (see DOSAGE AND ADMINISTRATION).

If symptomatic hypotension occurs, the patient should be placed in the supine position and, if necessary, normal saline may be administered intravenously. A transient hypotensive response is not a contraindication to further doses; however, lower doses of ACCUPRIL or reduced concomitant diuretic therapy should be considered.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression rarely in patients with uncomplicated hypertension, but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease such as systemic lupus erythematosus or scleroderma. Agranulocytosis did occur during ACCUPRIL treatment in one patient with a history of neutropenia during previous captopril therapy. Available data from clinical trials of ACCUPRIL are insufficient to show that, in patients without prior reactions to other ACE inhibitors, ACCUPRIL does not cause agranulocytosis at similar rates. As with other ACE inhibitors, periodic monitoring of white blood cell counts in patients with collagen vascular disease and/or renal disease should be considered.

Fetal/Neonatal morbidity and mortality: ACE inhibitors, including ACCUPRIL, can cause fetal and neonatal morbidity and mortality when administered to pregnant women.

When ACE inhibitors have been used during the second and third trimesters of pregnancy, there have been reports of hypotension, renal failure, skull hypoplasia, and death. Oligohydramnios has also been reported, presumably resulting from decreased fetal renal function; oligohydramnios has been associated with fetal limb contractures, craniofacial deformities, hypoplastic lung development, and intrauterine growth retardation.

Prematurity and patent ductus arteriosus have been reported, although it is not clear whether these occurrences were due to the ACE-inhibitor exposure or to the mother's underlying disease. It is not known whether exposure limited to the first trimester can adversely affect fetal outcome.

A patient who becomes pregnant while taking ACE inhibitors, or who takes ACE inhibitors when already pregnant, should be apprised of the potential hazard to her fetus. If she continues to receive ACE inhibitors during the second or third trimester of pregnancy, frequent ultrasound examinations should be performed to look for oligohydramnios. When oligohydramnios is found, ACE inhibitors should generally be discontinued.

Infants with histories of in utero exposure to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion. Hemodialysis and peritoneal dialysis have little effect on the elimination of quinapril and quinaprilat.

No fetotoxic or teratogenic effects were observed in rats at quinapril doses as high as 300 mg/kg/day (180 and 30 times the maximum daily human dose when based on mg/kg and mg/m², respectively), despite maternal toxicity at 150 mg/kg/day. Tested later in gestation and during lactation, reduced offspring body weight was seen at ≥25 mg/kg/day, and changes in renal histology (juxtaglomerular cell hypertrophy, tubular/pelvic dilation, glomerulosclerosis) were observed both in dams and offspring treated with 150 mg/kg/day. Quinapril was not teratogenic in the rabbit; however, as noted with other ACE inhibitors, maternal toxicity and embryotoxicity were seen in some rabbits at quinapril doses as low as 0.5 mg/kg/day (one time the recommended human dose) and 1.0 mg/kg/day, respectively.

PRECAUTIONS

General

Impaired renal function: As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including ACCUPRIL, may be associated with oliguria and/or progressive azotemia and rarely acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine have been observed in some patients following ACE inhibitor therapy. These increases were almost always reversible upon discontinuation of the ACE inhibitor and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some hypertensive patients with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when ACCUPRIL has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of any diuretic and/or ACCUPRIL may be required.

Evaluation of hypertensive patients should always include assessment of renal function (see DOSAGE AND ADMINISTRATION).

Hyperkalemia and potassium-sparing diuretics: In clinical trials, hyperkalemia (serum potassium ≥5.8 mmol/L) occurred in approximately 2% of patients receiving ACCUPRIL. In most cases, elevated serum potassium levels were isolated values which resolved despite continued therapy. Less than 0.1% of patients discontinued therapy due to hyperkalemia. Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with ACCUPRIL (see PRECAUTIONS, Drug Interactions).

Surgery/anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, ACCUPRIL will block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients

Angioedema: Angioedema, including laryngeal edema, can occur with treatment with ACE inhibitors, especially following the first dose. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to stop taking the drug until they have consulted with their physician (see WARNINGS).

Symptomatic hypotension: Patients should be cautioned that lightheadedness can occur, especially during the first few days of ACCUPRIL therapy, and that it should be reported to a physician. If actual syncope occurs, patients should be told to not take the drug until they have consulted with their physician (see WARNINGS).

All patients should be cautioned that inadequate fluid intake or excessive perspiration, diarrhea, or vomiting can lead to an excessive fall in blood pressure because of reduction in fluid volume, with the same consequences of lightheadedness and possible syncope.

Patients planning to undergo any surgery and/or anesthesia should be told to inform their physician that they are taking an ACE inhibitor.

Hyperkalemia: Patients should be told not to use potassium supplements or salt substitutes containing potassium without consulting their physician (see PRECAUTIONS).

Accupril® (Quinapril Hydrochloride Tablets)

Neutropenia: Patients should be told to report promptly any indication of infection (eg, sore throat, fever) which could be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with ACCUPRIL is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions

Concomitant diuretic therapy: As with other ACE inhibitors, patients on diuretics, especially those on recently instituted diuretic therapy, may occasionally experience an excessive reduction of blood pressure after initiation of therapy with ACCUPRIL. The possibility of hypotensive effects with ACCUPRIL may be minimized by either discontinuing the diuretic or cautiously increasing salt intake prior to initiation of treatment with ACCUPRIL. If it is not possible to discontinue the diuretic, the starting dose of quinapril should be reduced (see DOSAGE AND ADMINISTRATION).

Agents increasing serum potassium: Quinapril can attenuate potassium loss caused by thiazide diuretics and increase serum potassium when used alone. If concomitant therapy of ACCUPRIL with potassium-sparing diuretics (eg, spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes is indicated, they should be used with caution along with appropriate monitoring of serum potassium (see PRECAUTIONS).

Tetracycline and other drugs that interact with magnesium: Simultaneous administration of tetracycline with ACCUPRIL reduced the absorption of tetracycline by approximately 28% to 37%, possibly due to the high magnesium content in ACCUPRIL tablets. This interaction should be considered if coprescribing ACCUPRIL and tetracycline or other drugs that interact with magnesium.

Lithium: Increased serum lithium levels and symptoms of lithium toxicity have been reported in patients receiving concomitant lithium and ACE inhibitor therapy. These drugs should be co-administered with caution, and frequent monitoring of serum lithium levels is recommended. If a diuretic is also used, it may increase the risk of lithium toxicity.

Other agents: Drug interaction studies of ACCUPRIL with other agents showed:

- Multiple dose therapy with propranolol or cimetidine has no effect on the pharmacokinetics of single doses of ACCUPRIL.
- The anticoagulant effect of a single dose of warfarin (measured by prothrombin time) was not significantly changed by quinapril coadministration twice-daily.
- ACCUPRIL treatment did not affect the pharmacokinetics of digoxin.
- No pharmacokinetic interaction was observed when single doses of ACCUPRIL and hydrochlorothiazide were administered concomitantly.

Carcinogenesis, Mutagenesis, Impairment of Fertility

Quinapril hydrochloride was not carcinogenic in mice or rats when given in doses up to 75 or 100 mg/kg/day (50 to 60 times the maximum human daily dose, respectively, on a mg/kg basis and 3.8 to 10 times the maximum human daily dose when based on a mg/m² basis) for 104 weeks. Female rats given the highest dose level had an increased incidence of mesenteric lymph node hemangiomas and skin/subcutaneous lipomas. Neither quinapril nor quinaprilat were mutagenic in the Ames bacterial assay with or without metabolic activation. Quinapril was also negative in the following genetic toxicology studies: *in vitro* mammalian cell point mutation, sister chromatid exchange in cultured mammalian cells, micronucleus test with mice, *in vitro chromosome* aberration with V79 cultured lung cells, and in an *in vivo* cytogenetic study with rat bone marrow. There were no adverse effects on fertility or reproduction in rats at doses up to 100 mg/kg/day (60 and 10 times the maximum daily human dose when based on mg/kg and mg/m², respectively).

Pregnancy

Pregnancy Category D: See WARNINGS, Fetal/Neonatal morbidity and mortality.

Nursing Mothers

It is not known if quinapril or its metabolites are secreted in human milk. Quinapril is secreted to a limited extent, however, in milk of lactating rats (5% or less of the plasma drug concentration was found in rat milk). Because many drugs are secreted in human milk, caution should be exercised when ACCUPRIL is given to a nursing mother.

Geriatric Use

Elderly patients exhibited increased area under the plasma concentration time curve (AUC) and peak levels for quinaprilat compared to values observed in younger patients; this appeared to relate to decreased renal function rather than to age itself. In controlled and uncontrolled studies of ACCUPRIL where 918 (21%) patients were 65 years and older, no overall differences in effectiveness or safety were observed between older and younger patients. However, greater sensitivity of some older individual patients cannot be ruled out.

Pediatric Use

The safety and effectiveness of ACCUPRIL in children have not been established.

ADVERSE REACTIONS

ACCUPRIL has been evaluated for safety in 4960 subjects and patients. Of these, 3203 patients, including 655 elderly patients, participated in controlled clinical trials. ACCUPRIL has been evaluated for long-term safety in over 1400 patients treated for 1 year or more.

Adverse experiences were usually mild and transient.

Discontinuation of therapy because of adverse events was required in 4.7% of patients treated with ACCUPRIL in placebo-controlled hypertension trials.

Adverse experiences probably or possibly related to therapy or of unknown relationship to therapy occurring in 1% or more of the 1563 patients in placebo-controlled hypertension trials who were treated with ACCUPRIL are shown below.

Adverse Events in Placebo-Controlled Trials

	ACCUPRIL (N = 1563) Incidence (Discontinuance)	Placebo (N = 579) Incidence (Discontinuance)
Headache	5.6 (0.7)	10.9 (0.7)
Dizziness	3.9 (0.8)	2.6 (0.2)
Fatigue	2.6 (0.3)	1.0
Coughing	2.0 (0.5)	0.0
Nausea/Vomiting	1.4 (0.3)	1.9 (0.2)
Abdominal Pain	1.0 (0.2)	0.7

Clinical adverse experiences probably or possibly related, or of uncertain relationship to therapy, occurring in 0.5% to 1.0% (except as noted) of the patients treated with ACCUPRIL (with or without concomitant diuretic) in controlled or uncontrolled trials (N = 4397) and less frequent, clinically significant events seen in clinical trials or post-marketing experience (the rarer events are in italics) include (listed by body system):

General: back pain, malaise

Cardiovascular: palpitation, vasodilation, tachycardia, *heart failure, hyperkalemia, myocardial infarction, cerebrovascular accident, hypertensive crisis, angina pectoris, orthostatic hypotension, cardiac rhythm disturbances*

Gastrointestinal: dry mouth or throat, constipation, *gastrointestinal hemorrhage, pancreatitis, abnormal liver function tests*

Nervous/Psychiatric: somnolence, vertigo, syncope, *nervousness, depression*

Integumentary: increased sweating, pruritus, *exfoliative dermatitis, photosensitivity reaction*

Urogenital: *acute renal failure*

Other: amblyopia, pharyngitis, sinusitis, bronchitis, *agranulocytosis, thrombocytopenia*

Angioedema: angioedema has been reported in patients receiving ACCUPRIL (0.1%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with ACCUPRIL should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Clinical Laboratory Test Findings

Hematology: (See WARNINGS)

Hyperkalemia: (See PRECAUTIONS)

Creatinine and blood urea nitrogen: Increases (>1.25 times the upper limit of normal) in serum creatinine and blood urea nitrogen were observed in 2% and 2%, respectively, of patients treated with ACCUPRIL alone. Increases are more likely to occur in patients receiving concomitant diuretic therapy than in those on ACCUPRIL alone. These increases often remit on continued therapy.

New!
ONCE-A-DAY*
ACCUPRIL®
quinapril HCl tablets

* In some patients, the antihypertensive effect may diminish toward the end of the once-daily dosing interval. In such patients, an increase in dosage or twice-daily administration may be warranted.

PARKE-DAVIS
Division of Warner-Lambert Company
Morris Plains, New Jersey 07950

PD-103-JA-7164-A2(022)

The biochemical abnormalities can be detected by testing for circulating fibrin monomers and fibrin-degradation products. Once the occurrence of PE and DIC was recognized, treatment with heparin corrected the hematologic abnormalities and allowed the patient to recover.

Case 2 serves as a reminder that even in those clinical settings in which DIC can occur, PE may be present and should be considered even if laboratory examination suggests autoanticoagulation. The presence of an autoanticoagulation picture should not deter the clinician from treating with full doses of heparin, since the autoanticoagulation may represent DIC secondary to PE[1,5,6].

This association between PE and DIC is not well known[1,7]. The proposed mechanisms by which PE may result in DIC include: Liberation of tissue factors, endothelial damage, vascular malformation, decreased blood flow[7].

Stahl studied this association in 6 patients with DIC of unknown etiology and in each case he was able to document, ' y pulmonary angiogram or scanning, coexisting PE. Included ere patients with DIC and DVT, DIC after aortic valve placement, DIC after uncomplicated hemicolectomy for a enign villous adenoma, DIC and ulcerative colitis, DIC postdominal aortic surgery and DIC after a cesarean section. All ases were found to have coagulation abnormalites and evience of DIC with thrombocytopenia. Full-dose heparin treatent resolved their hematologic abnormalities as well as their ilmonary emboli[1].

PE associated with an elevation of FSP was first described by Merskey. Elevated FSP was thought to represent the defibrination syndrome wherein fibrinolysis was the result of degradation and resolution of emboli[2]. Recent evidence suggests that PE itself activates the coagulation mechanism resulting in increased FSP and decreased fibrinogen levels; this activation is not expected to occur from fibrinolysis of an embolus.

Support for this concept comes from the finding that the fibrin formed after embolization has occurred is different from the fibrin in the original embolus itself. A study in dogs in which an I-125 fibrin-labeled autologous clot was embolized into the dog lung, revealed that the subsequent appearance of fibrin degradation products did not contain the radioactive label. Heparin given just prior to embolization was able to markedly inhibit the consumption of fibrinogen and the production of degradation products[8]. This suggests further evidence that DIC occurred secondary to PE; rather than fibrinolysis of the embolus.

This appears to be a specific activation that occurs in the lung; patients with thrombophlebitis or deep venous thrombosis give no evidence of DIC or of an increase in FSP unless there is also a PE[3,8]. In a study of 46 patients with suspected PE, the concentration of FSP when compared with the angiographic findings revealed that FSP was increased above 10 micrograms per milliliter in 19 patients with angiographically documented PE and were not elevated at all in the 22 patients

(Continued on page 134) ➤

WHEN EXPERIENCE COUNTS, COUNT ON HAWAIIAN TAX-FREE TRUST.

Yes, Hawaiian Tax-Free Trust is an investment you can count on. As the first and largest fund in the Islands investing in municipal bonds, the Trust offers one of the few remaining ways to earn tax-free income together with a high level of safety.

Moreover, as a resident of Hawaii your income from the Trust is free of ***both*** Federal and State of Hawaii income taxes.*

Best of all, you get experienced, locally-based investment management by Hawaiian Trust Co., Ltd.— people you know and can count on.

DOUBLE TAX-FREE INCOME

You'll also enjoy:

- ❑ a high-grade, widely diversified portfolio
- ❑ monthly dividends** by check, or reinvested for you ***without*** sales charge
- ❑ ready liquidity**
- ❑ high current return
- ❑ low initial investment - $1,000

Aquila Distributors, Inc.
820 Mililani Street, Suite 400, Honolulu, Hawaii 96813

❑ ***YES***, tell me more about how I can earn high monthly income and pay no Federal and State income taxes with the Hawaiian Tax-Free Trust. Please send a free prospectus containing more complete information, including all fees and expenses. I will read it carefully before I invest or send money.

Please print clearly

Name:_____

Address:_____

City:_____ State:_____ Zip:_____

Home Phone: (_____) _____

Business Phone: (_____) _____ HMJ

Make an investment that you and Hawaii can count on. For details, talk to your broker. Or call the Trust toll-free today.

1-800-228-4227

HAWAIIAN TAX-FREE TRUST

* Under some circumstances, a small portion of income may be subject to tax for certain investors. ** Share value and dividend rates are not fixed and vary with interest rate fluctuations. Redemptions are at the current net asset value which may be more or less than cost.

© 1992 Aquila Distributors, Inc.

Human hematopoietic growth factors

Amy H Matayoshi*
Jeffrey M Nakamura MD** *(posthumously)*

The proliferation and the differentiation of bone marrow progenitor cells are regulated by glycosylated hematopoietic hormones. The major site of hematopoiesis is in the stromal matrix of the bone marrow, with secondary sites in the spleen, kidney and thymus. The cellular components of the blood are thought to be derived from a pluripotent stem cell. The peripheral blood cells possess limited life spans in the circulatory system. Their numbers must be maintained under normal conditions, and they must respond to the various environmental stresses placed upon the body. For example, the number of circulating leukocytes increases rapidly when an individual experiences severe infection[12].

Four of the major human myeloid growth factors will be discussed. Erythropoietin stimulates the production of red blood cells. Three colony-stimulating factors: Granulocyte colony-stimulating factor (G-CSF), granulocyte-macrophage colony stimulating factor (GM-CSF), and interleukin III (IL-3), all influence the production and the maturation of the various types of leukocytes.

These hormones have been biosynthetically isolated and cloned, by means of recombinant DNA technology. The production of these factors in large quantities enables researchers to study their specific activities in great detail and to analyze their therapeutic relevance. Clinical trials are currently being conducted to further elucidate their potential for increasing the numbers and the activities of the various blood cells.

The hematopoietins

The hematopoietic proteins were first identified and purified from a variety of sources. In the late 1960s, the colony-stimulating factors were identified using cell-culture colony-formation assays. These assays consisted of 2 layers placed in a small laboratory dish. The first layer on the bottom of the dish, the "feeder layer," was comprised of various types of white blood cells in a semisolid medium. Bone marrow cells were placed on top of this feeder layer. When incubated, colonies of differentiated white blood cells formed the second layer. Altering the contents of the feeder layer resulted in the formation of various types and numbers of colonies[4].

The hematopoietic proteins were initially purified. In general, their amino-acid sequence was used to construct cDNA probes. These probes were used to isolate the desired gene from the human DNA library. The recombinant DNA was cloned and inserted into mammalian or bacterial vectors, along with various enhancers or promoters designed to amplify the expression of the gene for the large scale production of the hormone. The successful utilization of recombinant DNA technology allowed for extensive experimentation with these factors in clinical trials.

Erythropoietin was first isolated and purified from the urine of a patient with aplastic anemia[3]. The amino acid sequence was obtained and used to construct a DNA probe. This probe was used to identify the corresponding cDNA, which was then placed into mammalian cells. Mammalian

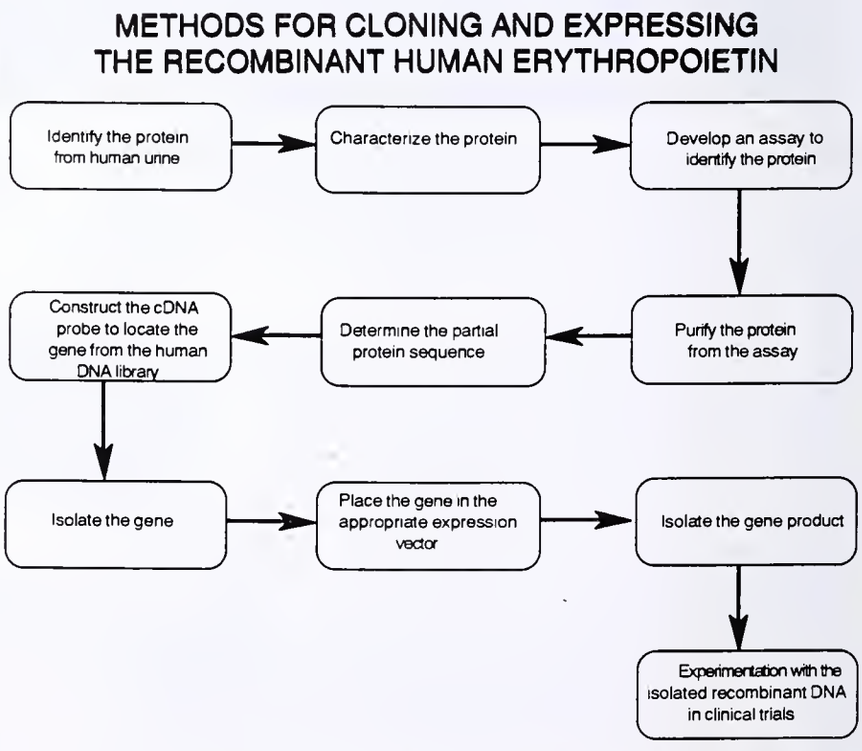


FIGURE 1: This figure outlines the steps utilized to clone and to express the gene for erythropoietin. Erythropoietin was the first of the hematopoietic growth factors to be manufactured biosynthetically. The form of erythropoietin used in clinical trials is produced only in mammalian cells.

* Student
University of Redlands 1986
Redlands, California
** Associate Professor of Medicine, Division of Hematology
John A Burns School of Medicine
Director of Medical Education
Kuakini Medical Center
Honolulu, Hawaii

Received for publication April 23, 1991.

(Continued on page 128) ➤



Innovation means never having to say, "It can't be done."

When you lease office equipment from GECC, you get more than hardware. You get innovative solutions.

Just call GECC, tell us your needs, and we'll help you decide whether leasing or buying is better for you. Yes, we can be objective. We offer loans for the purchase of office equipment, too.

Either way, you can count on innovative solutions from GECC, because there's nobody better in the business.

GECC Financial

EQUAL HOUSING LENDER

Member FDIC. GECC Hawaii Leasing is a division of GECC Financial—
a unit of General Electric Capital Corporation. 700 Bishop Street, 9th Floor: 527-8333.

cells were utilized as the host cell for erythropoietin because of the inability of bacterial and yeast cells to perform the necessary glycosylation steps in producing the biologically active form of the recombinant gene. The biosynthetically produced erythropoietin used in clinical trials is identical to the original, purified, urinary form.

The cDNA for G-CSF was developed using a structural approach. The natural hematopoietin was first purified from human cell lines and from normal placentae[1]. These purified factors were subjected to structural analysis and the resultant amino-acid sequence was used to construct the nucleotide sequence of different regions of DNA. Hybridization probes were constructed to select the G-CSF cDNA from the human DNA library to isolate the gene[2]. The isolated cDNA sequence was inserted into *E.coli* and also into mammalian cells to produce the functional hormone. The nonglycosylated form of G-CSF is used in clinical trials.

The trace physiological quantities of GM-CSF present in its natural form made purification difficult. Therefore, a different strategy was employed for the identification and the production of GM-CSF. HTLV-II transformed T-lymphoblast cell lines induced the production of GM-CSF and other regulatory hormones. The GM-CSF was partially purified. However, the limited yield of the natural protein made sequencing of the protein difficult. Therefore cDNA clones were transiently expressed in COS-1 (monkey) cells to construct cDNA libraries of approximately 300 recombinants[14]. These libraries were tested to see if they induced the secretion of GM-CSF in various assays.

The expression of GM-CSF mRNA in various cells such as lectin-stimulated peripheral blood lymphocytes, and some mature T-cell lines led to the further isolation of GM-CSF clones from the cDNA libraries[14]. The natural GM-CSF was purified, using column chromatography and 2 reversed-phase high-performance liquid chromatography (HPLC) steps. The recombinant GM-CSF was produced in large quantities using DNA transfection. Introducing the recombinant DNA into COS-1 cells allowed for production of recombinant GM-CSF, which also aided in the purification process. The recombinant protein showed no difference in specific activity as compared with the natural protein. The large amounts of the recombinant protein available facilitated the sequencing of the gene. Commercially, GM-CSF is produced in 3 different expression vectors: Mammalian cells, yeast cells, and bacterial cells *(E.coli)*[7]. These 3 vectors produce different levels of glycosylation as compared to the natural protein.

The cDNA for IL-3 was made through methods similar to those used to produce GM-CSF. IL-3 was the most difficult of the human growth factors to be isolated[2]. The IL-3 was purified in activated T-cells. The cDNA of a gibbon T-cell line encoding a multilineage CSF believed to be similar to IL-3 was used as a hybridization probe to identify the human gene[2,3]. The direct functional analysis of the products of cDNA clones introduced into mammalian cells in the appropriate expression vector was a novel approach to identify and to proliferate the hematopoietin.

Signal transduction

The mechanisms by which the hematopoietic growth factors affect their target cell have not yet been clearly delineated. Each growth factor binds to one specific receptor on the target cell surface[8,12]. The method and the prevalence of binding suggests that the individual receptors may affect the shape and, therefore, the ability of other receptors to bind to their specific factor. The synergistic effects of the various growth factors involve the interactions between the receptors and the growth factors bound to them[8]. The receptors may be activated transiently and may activate other growth proteins or secondary messengers such as cAMP or cGMP, depending on the mechanism of signal transduction in the stimulatory pathway[6,9]. The control of hematopoiesis lies in the proper identification of the cell surface receptors and their relationships to the other receptors during hematopoietic differentiation. In order to maintain normal growth as well as to promote rapid responses to environmental stresses, the cascading events which initiate the proliferation and the differentiation of the pluripotent stem cell must be identified. The make-up of the receptors for erythropoietin, IL-3, GM-CSF, and G-CSF have not yet been constructed. Because of the synergistic effects of the hematopoietic hormones, it has been difficult to isolate or to identify the receptors. The receptor structures are expected to be as diverse as the structures of the hormones themselves[9].

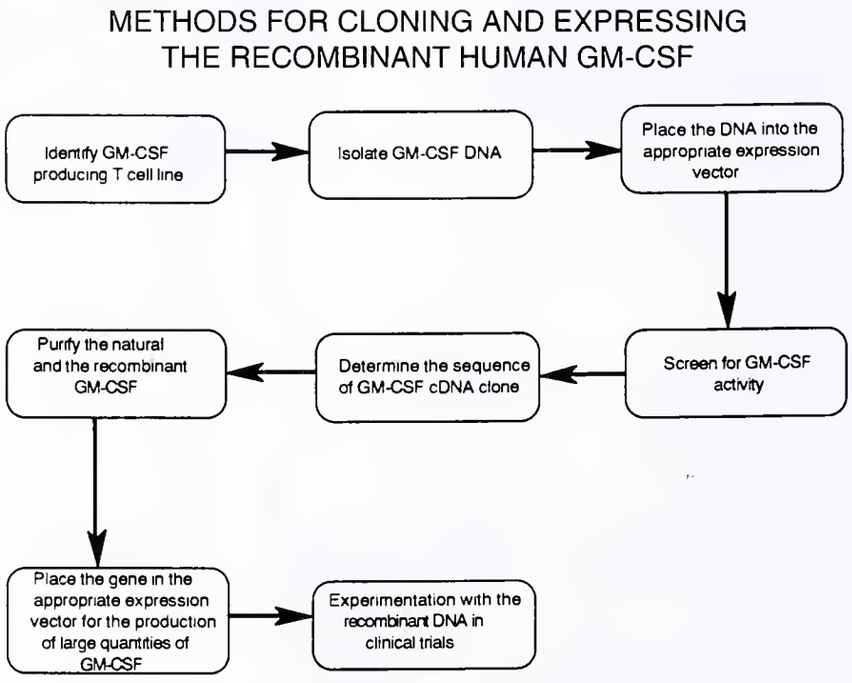


FIGURE 2: This figure outlines the steps utilized to clone and to express the gene for GM-CSF. IL-3 was cloned and expressed using similar methods. The trace quantities of these hormones caused difficulty in the large scale production of the genes. However, recombinant DNA technology has made it possible to yield large quantities of these hormones. This allowed for research into the clinical applications of these two hematopoietic hormones.

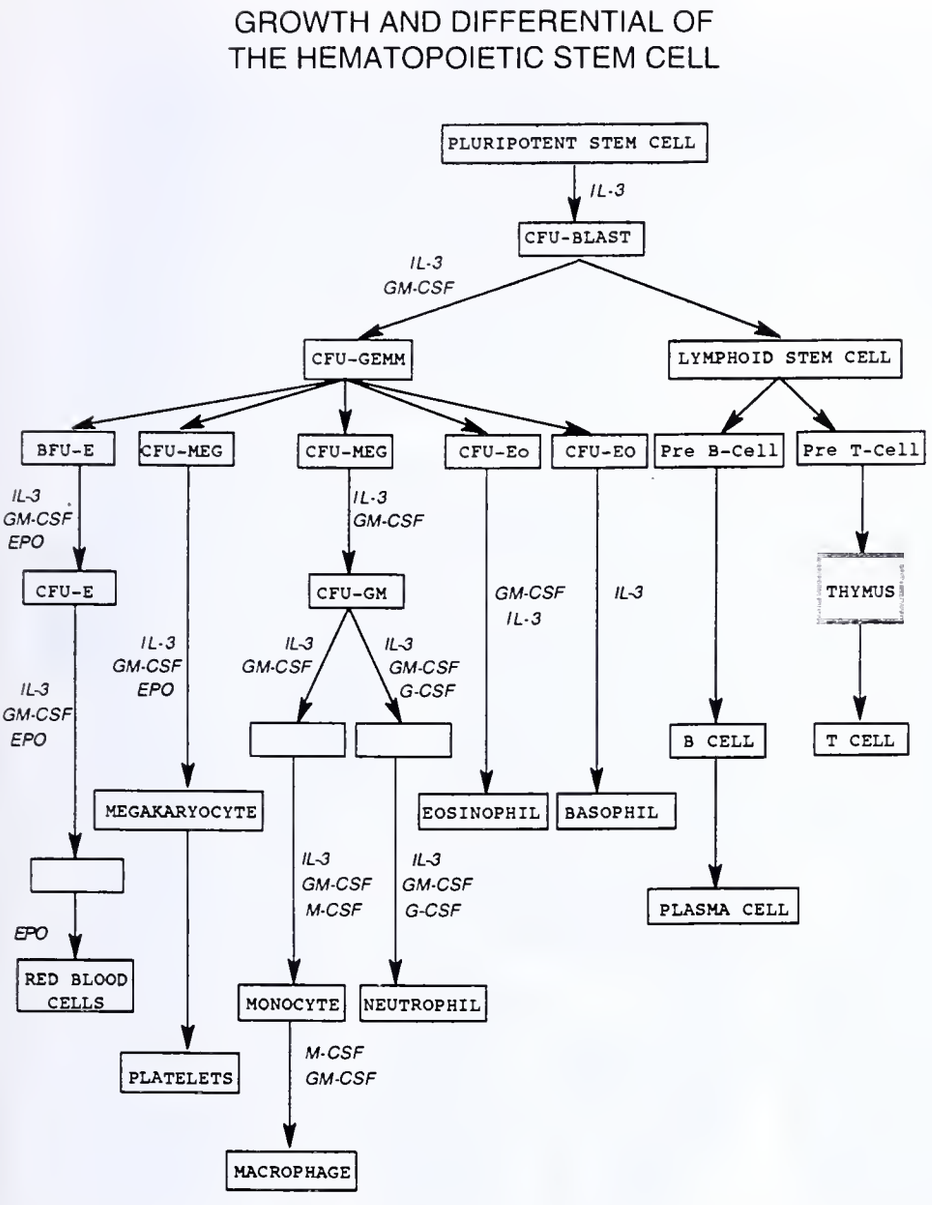


FIGURE 3: This figure provides an overview of hematopoiesis. The primary uncommitted progenitor cell is the pluripotent stem cell. A cell closely related to this cell is the CFU-BLAST, a multipotent cell identified using the CFU-blast colony assay[7]. The first step in the differentiation of the stem cell is a division into two major cell lineages. The growth of the lymphoid cells and the myeloid cells (CFU-GEMM) are influenced by the various hematopoietic hormones. The various progenitor cells were identified in vitro as CFU-GEMM (colony-forming unit, granulocyte-erythrocyte-monocyte-megakaryocyte); BFU-E (burst-forming unit-erythroid); CFU-MEG (CFU-megakaryocyte); CFU-Eo (CFU-eosinophil); CFU-E (CFU-erythroid); and CFU-GM (CFU-granulocyte-monocyte).

Erythropoietin

Erythropoietin regulates the production of red blood cells. It is produced in the peritubular cells of the kidneys, circulated via the plasma and excreted in the urine. Renal production of erythropoietin is directly proportional to hypoxemia. Erythropoietin was the first hematopoietic growth factor to be identified and cloned in mammalian cells. The gene for erythropoietin is located on the long arm of chromosome 7 (Table-1)[1,3,11].

The recombinant hormone used in clinical trials is derived from mammalian cells, due to the patterns of glycosylation necessary for the activation of the protein. The hormone was first used in patients with renal failure, a condition associated with a decrease in erythropoietin production and marrow sensitivity. Anemia associated with a decrease in the number of red blood cells often accompanies dialysis, and this is a result of the low levels of erythropoietin and the increase of inhibitors and toxins. Recombinant erythropoietin administration has been shown to increase the erythroid lineage, stimulating a dose-dependent rise in hematocrit levels. This has led to subjective improvement in sleeping and waking patterns, exercise capability, energy, appetite, and libido[1]. The side effects of erythropoietin were controlled by regulating the rise of hematocrit levels to 6% per month[1]. Hypertension may occur as a result of the increase in blood volume or in blood viscosity and must be closely monitored.

Anemias associated with decreased levels of erythropoietin are expected to benefit from erythropoietin therapy. However, reports have shown that anemias associated with normal or high serum erythropoietin levels also show improvement in response to erythropoietin therapy[1]. Patients with severe anemia or rheumatoid arthritis, for whom transfusions are contraindicated, may benefit from erythropoietin treatments[1].

Anemias accompanying various forms of therapy can also be treated with synthetic erythropoietin. For example, zidovudine (AZT) treatment in AIDS patients causes anemia[1]. Simultaneous administration of erythropoietin has been successful in combating the anemia in patients receiving AZT unless the serum erythropoietin levels were greater than 500 mu per milliliter before therapy[1]. This would allow for adequate dosage and duration of zidovudine treatment in patients with AIDS.

Erythropoietin also may be used on surgical patients, reducing the need for transfusion. Theoretically, the increase of erythrocyte production by erythropoietin will improve the patient's ability to recover from red-cell depletion. Erythropoietin would need to be administered before, during and after surgery. This would reduce the risk inherent in giving transfusions and perhaps ultimately the risk of the surgical procedure itself[4].

IL-3

IL-3 stimulates the proliferation of stem cells and committed progenitors of multiple lineage cells. It is an early-acting factor that stimulates proliferation of an enormous range of cell types. Clinical trials with the administration of IL-3 have begun but the results of these trials have not yet been reported. IL-3 was first produced by Yang et al in cultured monkey cells[7]. The inducible cellular source of IL-3 is the T-lymphocyte. The gene for IL-3 is located on the long arm of chromo-

(Continued on page 131) ➤



ONLY ONE H_2-ANTAGONIST HEALS REFLUX ESOPHAGITIS AT DUODENAL ULCER DOSAGE. ONLY ONE.

Of all the H_2-receptor antagonists, only Axid heals and relieves reflux esophagitis at its standard duodenal ulcer dosage. Axid, **150** mg b.i.d., relieves heartburn in **86%** of patients after one day and **93%** after one week.[1]

AXID®
nizatidine
150 mg b.i.d.

ACID TESTED. PATIENT PROVEN.

1. Data on file, Lilly Research Laboratories.

See accompanying page for prescribing information.

©1991, ELI LILLY AND COMPANY

NZ-2947-B-249304

AXID®

nizatidine capsules



Brief Summary. Consult the package insert for complete prescribing information.

Indications and Usage: 1. *Active duodenal ulcer*—for up to 8 weeks of treatment at a dosage of 300 mg h.s. or 150 mg b.i.d. Most patients heal within 4 weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a dosage of 150 mg h.s. at bedtime. The consequences of therapy with Axid for longer than 1 year are not known.

3. *Gastroesophageal reflux disease (GERD)*—for up to 12 weeks of treatment of endoscopically diagnosed esophagitis, including erosive and ulcerative esophagitis, and associated heartburn at a dosage of 150 mg b.i.d.

Contraindication: Known hypersensitivity to the drug. Because cross sensitivity in this class of compounds has been observed, H_2-receptor antagonists, including Axid, should not be administered to patients with a history of hypersensitivity to other H_2-receptor antagonists.

Precautions: *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests—False-positive tests for urobilinogen with Multistix® may occur during therapy.

Drug Interactions—No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A 2-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a 2-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups.The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a 2-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in 1 fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in 1 fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Worldwide, controlled clinical trials included over 6,000 patients given nizatidine in studies of varying durations. Placebo-controlled trials in the United States and Canada included over 2,600 patients given nizatidine and over 1,700 given placebo. Among the adverse events in these placebo-controlled trials, only anemia (0.2% vs 0%) and urticaria (0.5% vs 0.1%) were significantly more common in the nizatidine group. Of the adverse events that occurred at a frequency of 1% or more, there was no statistically significant difference between Axid and placebo in the incidence of any of these events (see package insert for complete information).

A variety of less common events were also reported, it was not possible to determine whether these were caused by nizatidine.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to 3 times the upper limit of normal, however, did not significantly differ from that in placebo patients. All abnormalities were reversible after discontinuation of Axid. Since market introduction, hepatitis and jaundice have been reported. Rare cases of cholestatic or mixed hepatocellular and cholestatic injury with jaundice have been reported with reversal of the abnormalities after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in 2 individuals administered Axid and in 3 untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with similar frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Anemia was reported significantly more frequently in nizatidine than in placebo-treated patients. Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Urticaria was reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. The ability of hemodialysis to remove nizatidine from the body has not been conclusively demonstrated; however, due to its large volume of distribution, nizatidine is not expected to be efficiently removed from the body by this method.

PV 2093 AMP [101591]

Additional information available to the profession on request.

Lilly

Eli Lilly and Company
Indianapolis, Indiana
46285

NZ-2947-B-249304

© 1991, ELI LILLY AND COMPANY

some 5[4,12,14]. The association between IL-3 and the other hematopoietic growth hormones located on this chromosome has not yet been determined.

GM-CSF

The first human GM-CSF cDNA was cloned and expressed in mammalian cells by Wong et al[4,7]. Along with IL-3, GM-CSF (a multipoietin) will target pluripotent cells and immature progenitor cells. It is not lineage specific, and it is required to be present throughout the process of differentiation. The gene for GM-CSF is also located on chromosome 5[4,12]. GM-CSF stimulates the growth of both granulocytic and monocytic colonies in a semisolid culture. GM-CSF has an early effect on myeloid development, and together with erythropoietin (late acting promoter of erythroid development), induces the formation of colonies containing erythroid and megakaryocytic cells.

GM-CSF also enhances the function of mature macrophages, eosinophils, and neutrophils. In various cells, it can cause increases in tumoricidal and phagocytic activity, intracellular killing, ADCC, superoxide production, immunoglobulin-mediated (opsonized) phagocytosis and chemotactic responsiveness (Handman and Burgess 1979; Lopez et al 1983, 1986; Vadas et al 1983; Weisbart et al 1986; Williamson and Brown 1987)[7]. GM-CSF also induces an increase in granulocyte aggregation in vitro (Arnaout et al 1986; Lopez et al 1986).

GM-CSF administration reduces the myelotoxic side-effects of chemotherapy for sarcoma. GM-CSF increases the neutrophil count; this can shorten the interval between cycles of chemotherapy. However, the ability to complete the cycle is not known to improve the survival rate or the response rate of the patient[1].

In bone marrow transplants, both mammalian recombinant GM-CSF and recombinant GM-CSF produced from yeast were tested. Mammalian cell GM-CSF did not significantly reduce the number of days that the leukocyte count was below 1,000/cubic millimeter. However, on the 14th day after treatment, a higher leukocyte count showed up and the incidence of bacteremia was reduced. Yeast-produced GM-CSF, in contrast, showed a shorter period of neutropenia (14 days as compared with 25 days in the control group); a decrease in the number of febrile days (6 days compared with 12 days); a decrease in the number of platelet units transfused (67 days compared with 84 days); and a reduction in the length of hospital stay (29 days compared with 41 days)[1]. There was also a reduced period of pancytopenia and a reduction in the infectious complications associated with autologous bone marrow transplants. However, it was not established whether there was also a decrease in the mortality rate of GM-CSF treated patients[1,7].

Aplastic anemia is caused by a decrease in the number of marrow stem-cells the result of an altered marrow microenvironment or immunologic disorder. GM-CSF improved the leukocyte count and bone marrow cellularity but with no increase in neutrophils. Therefore, the early progenitor cells affected may also require treatment with additional growth factors to be effective. However, these tests have not yet been conducted[1,7].

Continuous intravenous infusion with GM-CSF for 14

(Continued) ➤

PROPERTIES OF HUMAN COLONY-STIMULATING FACTORS

FACTOR	MOLECULAR WEIGHT (kd)	CHROMOSOME LOCATION	CELL PRODUCER	CELL STIMULATED	CLINICAL APPLICATIONS
EPO	34-39	7q11-q22	Peritubular cells of the of the kidney, Kupffer cells	late BFU-E, CFU-E, CFU-Meg	renal failure, anemias, preoperative & postoperative patients, AIDS
G-CSF	18-22	17q11.2-21	Monocytes, bone marrow stromal cells	CFU-G, HL60 cell line	bone marrow transplants, chemotherapy, neutropenias
GM-CSF	14-30	5q23-31	T lymphocytes, endothelial cells, bone marrow stromal cells, fibroblasts	CFU-GM, BFU-E, CFU-MIX, CFU-EO, CFU-Meg, Granulocytes, Monocytes, Eosinophils, KGI &HL60 cell lines	bone marrow transplants, chemotherapy, myelodysplasia, anemias, neutropenias, AIDS
IL-3	47-90	5q23-31	T lymphocytes	CFU-MIX, BFU-E, CFU-GM/G/M, CFU-EO, CFU-Meg	unknown

TABLE 1: This table lists the various properties of 4 hematopoietic hormones, erythropoietin, G-CSF, GM-CSF, and IL-3.

days in patients with pancytopenia due to myelodysplasia has demonstrated an increase in the total number of leukocytes (5 to 70 fold), granulocytes (5 to 313 fold), eosinophils, monocytes, and also a small increase in lymphocyte count. Maintenance therapy showed some multilineage effects. There was an increase in platelet and reticulocyte count, and an increase in hemoglobin concentration which caused a decrease in the necessity to transfuse red cell and platelets. However, the increase in platelet and erythrocyte count frequently did not occur; this was of minimal clinical importance[1,7].

The most significant characteristic of AIDS in patients is the decrease in T4 lymphocytes. The low levels and decreased functional abilities of neutrophils and monocytes in AIDS patients can be improved by the various treatments against the virus. However, Zidovudine (AZT) treatment has been shown to cause myelosuppression. In addition, antiretroviral, antimicrobial, or antitumor therapy used as therapy in AIDS patients can give rise to low blood counts. The use of GM-CSF and G-CSF have resulted in an increase in neutrophils, bands, eosinophils, and a slight increase in monocytes. The dose-dependent response to GM-CSF and G-CSF could benefit the patient's immune response and improve the hematologic tolerance to other drugs. These growth factors have also proven to be effective for long-term therapy, as shown by the absence of tachyphylaxis when given subcutaneously.

GM-CSF alone does modulate HIV activity. Studies indicate that there is an increase in HIV p24 antigen (viral specific protein) levels when patients are treated with GM-CSF alone. Therefore, the advantage of the administration of GM-CSF is being studied in conjunction with treatment with Zidovudine. Although GM-CSF counteracts the negative side-effects of some treatments, it is not yet clear if this also leads to an improved outcome for the patient with AIDS[1,7].

G-CSF

G-CSF is a late-acting factor that stimulates the growth of neutrophil colonies in vitro. G-CSF was first purified from human cell lines and placenta[1]. This factor was isolated and cloned by Souza et al in *E.coli*[4,7]. The inducible cellular source of G-CSF are the monocytes and bone marrow stromal cells. The gene for G-CSF has been located on the long arm of chromosome 17[4,12]. G-CSF also has a maturation-inducing effect and will act on mature effector cells to enhance their function. It acts only on the neutrophil colonies to increase antibody-dependent cell-mediated cytotoxicity (ADCC) and to enhance their phagocytic capability.

The nonglycosylated form of the recombinant hormone produced in bacterial cells is used in clinical trials. Similar to GM-CSF, G-CSF has also shown promising beneficial effects on chemotherapy. G-CSF reduces the myelotoxicity of chemotherapy, making the side-effects more tolerable. There is a reduction in the duration and the nadir of neutropenia after doxorubicin hydrochloride (Adriamycin), ifosfamide-mesna and etoposide treatment. G-CSF will increase the neutrophil count, reduce febrile episodes, and reduce the incidence of mucositis. However, only at very high doses will G-CSF increase monocyte or lymphocyte counts.

The significant consequence of G-CSF treatment in conjunction with chemotherapy in cancer patients was the partial mitigation of the myelosuppression. This permitted the completion of the cycle of chemotherapy without undue delay in patients being given chemotherapy for bladder cancer[1]. Myelosuppression was the cause for a lapse in chemotherapy in 70% of a control group who did not receive G-CSF[1]. However, this did not improve the survival rate or response rate of the patients who were administered G-CSF[1,7].

Treatment with G-CSF in bone-marrow transplant patients, as well as in patients with myelodysplasia, showed similar results as those treated with GM-CSF. The analysis of the advantage of using G-CSF or GM-CSF has not yet been fully explained, however. Further studies and clinical tests must be conducted before differences in the action of these 2 growth factors in such situations can be determined[1,7].

Idiopathic neutropenias are also being treated with G-CSF. For example, patients with Kostmann's Syndrome who have recurrent infections with considerable morbidity and mortality as a consequence, show improved neutrophil counts of 1,000 cells per mm^3 within 2 weeks after G-CSF administration. This level was sustained throughout continued therapy. The resolution of the preexisting chronic infection and a decrease in the number of subsequent re-infections also took place under treatment with G-CSF[1,7].

In addition, human cyclic neutropenia, a rare disorder in which periodic decreases in the number of neutrophils in the bone marrow and the blood occur, when treated with G-CSF showed a reduction in the length of neutropenia. G-CSF reduced both the severity of the disease and the accompanying symptoms. However, it did not rid the patient of the disorder. G-CSF as treatment has shown encouraging results in acquired chronic neutropenias. Obviously, further clinical trials and study are necessary to elucidate the potential benefits of administering G-CSF[1,7].

Conclusion

Research in the last 10 years has provided the information necessary to clone and to express the hematopoietic hormones. This has allowed for a wide range of clinical trials to determine the therapeutic benefits of these hormones in the treatment of various disorders. Erythropoietin increases the number of red cells in circulation. It has been utilized successfully in patients with renal disorders and anemias. In preoperative and postoperative patients, erythropoietin has resulted in more rapid red cell recovery. Erythropoietin is also employed to combat the side effects of various therapies, most notably in AIDS.

The colony-stimulating factors, IL-3, GM-CSF, and G-CSF, increase the number of leukocytes in vitro. The synergistic effects of these hormones requires extensive study in order to define the singular role each factor plays on the production of the desired cell types. Clinical trials are taking place to determine the effects of these factors when administered to patients with conditions involving decreased immune response as a result of low levels of circulating leukocytes. Of the 3 colony-stimulating factors discussed above, the least known for its therapeutic benefit is IL-3.

GM-CSF has also been beneficial when used in conjunction with various treatments, such as chemotherapy and AZT, by increasing the number of circulating neutrophils and monocytes. GM-CSF reduces the risk for both the donor and the recipient in bone marrow transplants. It resolves the anemias associated with a decrease in the marrow stem-cells, or it improves the marrow environment. It ameliorates the neutropenia resulting from therapy for cancer.

G-CSF has shown therapeutic benefits similar to GM-CSF. Bone-marrow transplants, myelodysplasia and neutropenias have been improved as indicated by increased numbers of neutrophils. In the treatment of the neutropenia caused by chemotherapy, G-CSF has shown advantages similar to those seen in the administration of GM-CSF. GM-CSF and G-CSF have shown similar results when utilized in clinical trials. The difference between the 2 growth factors has not yet been identified, further research and experimentation are needed to determine the advantage of one factor over the other.

The hematopoietic growth factors have the potential to enhance the quality of life in patients suffering from a broad range of illnesses and conditions. Defining the indications and the toxicities of these factors will be an area of enormous interest and importance in the years to come.

REFERENCES

1. Groopman JE, Molina JM, Scadden DT. Hematopoietic Growth Factors: Biology and Clinical Applications. *NEJM* 321:1449-1459.
2. Clark SC, Kamen R. The Human Hematopoietic Colony-Stimulating Factors. *Science* 236:1229-1236.
3. Sieff CA. Hematopoietic Growth Factors. *Journal Clinical Investigation* 79:1549-1557.
4. Golde DW, Gasson JC. Hormones That Stimulate the Growth of Blood Cells. *Scientific American* 259:62-70.
5. Dinarello CA, Mier JW. Lymphokines. *NEJM* 317:940-945.
6. Druker, B , Mamon HJ, Roberts TM. Oncogenes, Growth Factors, and Signal Transduction. Seminars in Medicine of the Beth Israel Hospital, Boston. 321:13831390.
7. Griffin JD. 1990. Colony-Stimulating Factors: A Review. New York, NY: Triclinica Communications, Inc.
8. Walker F, Nicola N, Metcalf D, Burgess A. Hierarchical Down-Modulation of Hematopoietic Growth Factor Receptors. *Cell* 43:269-276.
9. Waterfield MD. Growth Factor Receptors. *British Medical Bulletin* 45:541-553.
10. Bronchud MH, Dexter TM. Clinical Use of Growth Factors. *British Medical Bulletin* 45:590-599.
11. Johnson GR. Erythropoietin. *British Medical Bulletin* 45:506-514.
12. Dexter TM. Haemopoietic Growth Factors. *British Medical Bulletin* 45:337-340.
13. Sief CA, Emerson SG,Donahue RE, Nathan DG, Wang EA, Wong GG, Clark SC. Human Recombinant Granulocyte-Macrophage Colony-Stimulating Factor: A Multilineage Hematopoietin. *Science* 230:1171-1173.
14. Wong GG, Witek JS, Temple PA, Wilkens DM, Leary AC, Luxenberg DP, Jones SS, Brown EL, Kay RM, Orr EC, Shoemaker C, Golde DW, Kaufman RJ, Hewick RM, Wang EA, Clark SC. Human GM-CSF: Molecular Cloning of the Complementary DNA and Purification of the Natural and Recombinant Proteins. *Science* 228:810-815.

■



YOCON®
YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



AVAILABLE AT PHARMACIES NATIONWIDE

PALISADES PHARMACEUTICALS, INC.
219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

MASSIVE PULMONARY *(Continued from page 125)*

that were negative for PE. There were 5 patients with equivocal findings[4].

Conclusion

Pulmonary embolism should be included in the differential diagnosis of DIC of unknown origin because prompt treatment with full-dose heparin will correct the hematologic abnormalities as well and may be lifesaving. An autoanticoagulated state does not always prevent the formation of thrombi, and it may obscure an occult PE. The presence of FSP may add to the understanding of the pathophysiology in PE and may be a laboratory clue that can assist in the management of both PE and DIC. This occurrence merits wider recognition by clinicians and further studies need to be conducted.

REFERENCES

1. Stahl RB, Javid JP, Lackner H. Unrecognized pulmonary embolism presenting as disseminated intravascular coagulation. *Am J Med* 1984, 76:772-78.
2. Merskey C, Kleiner GJ, Johnson AJ. Quantitative estimation of split products of fibrinogen in human serum, relation to diagnosis and treatment. *Blood* 1966; 28:1-18.
3. Wilson JE, Frenkel EP, Pierce AK, et al. Spontaneous fibrinolysis in pulmonary embolism. *J Clin Invest* 1971; 50:474-480.
4. Rickman FD, Handin R, Howe JP, Alpert JS, Dexter L, Dalen JE. Fibrin split products in acute pulmonary embolism. *Ann Intern Med* 1973. 79:664-668.
5. Pesola GR, Carlon GC. Pulmonary embolus-induced disseminated intravascular coagulation. *Crit Care Med* 1987; 15:983-84.
6. Wong CK, Lau CP, Cheng CH, Ng WF. Occult fatal pulmonary embolism with disseminated intravascular coagulation, an unusual case masquerading as miliary tuberculosis. *Chest* 1990; 98:1288-90.
7. Wintrobe MM, Lee GR, Boggs DR, et al. Acquired coagulation disorders. IN: Wintrobe MM, Lee GR, Boggs DR, eds. Clinical hematology. Philadelphia: Lea & Febiger, 1981;1206-1246.
8. Cade J, Hirsh J, Regoeczi E. Mechanisms for elevated fibrin/fibrinogen degradation products in acute experimental pulmonary embolism. *Blood* 1975; 45:563-568.

■

HAWAII MEDICAL ASSOCIATION · 1856 ·

A New HMA Membership Benefit for HMA Members Only!

An Opportunity You Can't Beat!

Get fleet prices on all Lexus models
Also available to members on the Neighbor Islands

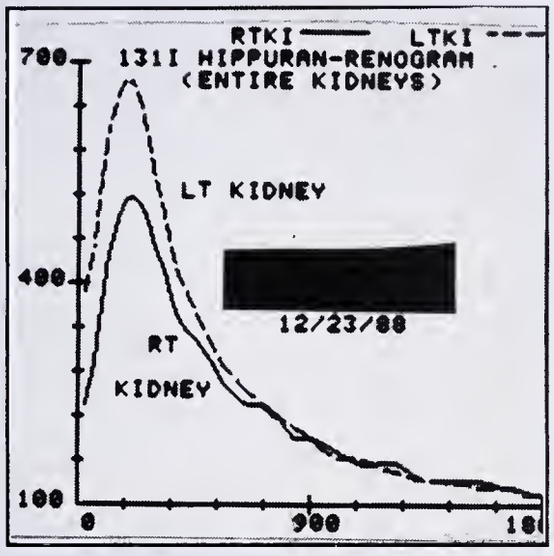
Call Brian Walker at 545-3987
or drop by their showroom at

Lexus of Hawaii
744 Ala Moana Boulevard
A Division of Servco Pacific Inc.

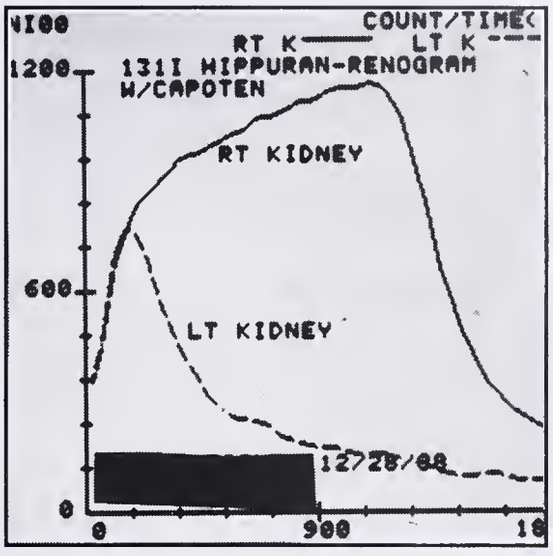
Nuclear Medicine Teaching File

CAPTOPRIL RENOGRAM IN RENOVASCULAR HYPERTENSION

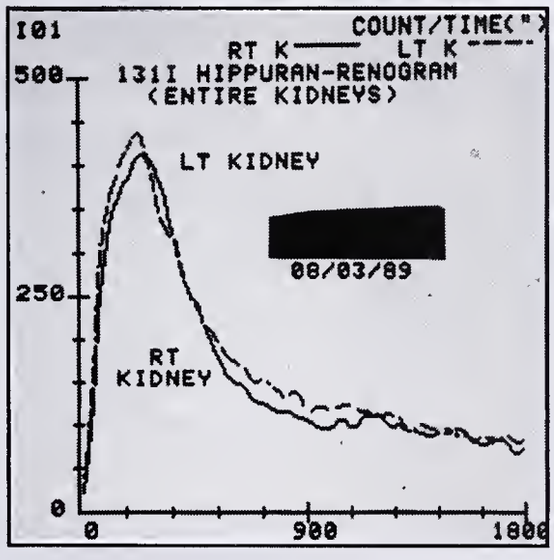
Clinical History: 43 year old female with headache, accelerating hypertension, and mild azotemia.



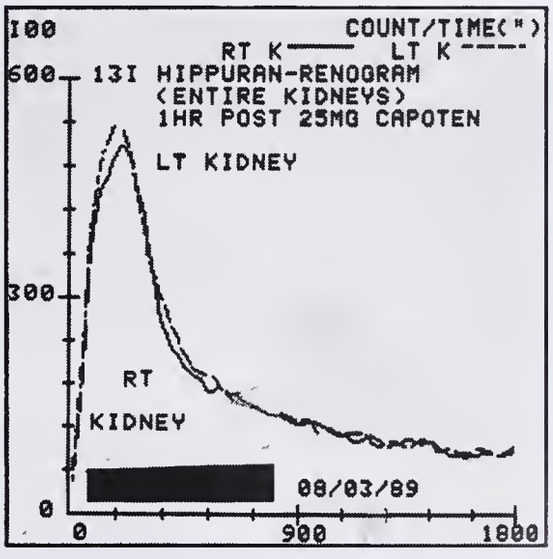
1. Baseline renogram without captopril shows slightly reduced function and mild delay in urinary clearance on the right.



2. Captopril renogram prior to angioplasty. Note exaggerated delay in urinary clearance induced by captopril on the right, consistent with renovascular hypertension. Arteriography showed severe fibromuscular dysplasia.



3. Renogram without captopril following angioplasty of the right renal artery. Note symmetrical kidney function.



4. Captopril renogram after angioplasty shows no further evidence for renovascular hypertension.

Nuclear Medicine – Non-invasive, physiologic imaging

PACIFIC RADIOPHARMACY, LTD.

A JOINT VENTURE OF
QUEEN'S MEDICAL CENTER, KUAKINI, SAINT FRANCIS,
STRAUB AND THE HONOLULU MEDICAL GROUP

Index to the Hawaii Medical Journal Vol 50, 1991

AGING
The 1992 Henry J Kaiser lecture, 50(12):422

ALCOHOL
Alcohol and sleep apnea, 50(8):282

ANEMIAS
Hereditary anemias in Hawaii (Reprint of HMJ vol 46 No 8, 1987), 50(9):334

ANISAKIASIS
Anisakiasis in Hawaii: a radiological diagnosis, 50(6):202
Human anisakiasis transmitted by marine food products, 50(1):9

ARNOLD, HARRY L JR MD
In Memoriam: Harry L Arnold Jr MD, 50(9):300

ASBESTOSIS
Toxic substances in the environment affecting respiratory function of people in Hawaii, 50(3):101

CANCER
A review of some tumors of interest for demographic study in Hawaii (Reprint of HMJ vol 33 no 8, 1974), 50(9):326

CHINA
The Hawaii Medical Fellowship Mission to China, 50(10):357

CLINICAL PATHOLOGIST'S CHAIR
Monoclonal antibodies, 50(8):288

COMPUTER SOFTWARE PACKAGE
Grateful Med: gateway to world-wide literature, 50(12):419

DEMOGRAPHICS
A review of some tumors of interest for demographic study in Hawaii (Reprint of HMJ vol 33 no 8, 1974), 50(9):326

DRINKING WATER
The relative safety of Hawaii's drinking water, 50(3):71

EDITORIALS
Blood, 50(7):220
A call for action: the Pepper Commission's blueprint for health care reform, 50(7):223
Communication and collaboration, 50(4):132
The complexities of statistical research, 50(4):132
A framework for reform of the U.S. health care financing and provision system, 50(7):224
From the AMA This Week, 50(7):226
Health Access America — strengthening the U.S. health care system, 50(7):220
Impingement, 50(10):355
The Journal's fiftieth anniversary, 50(9):302
Kleona Rigney MD, 50(5):169
The landmark JAMA of 15 May 1991, 50(7):220
Look carefully at sashimi, 50(6):196
The medical issue of our polluted environment, 50(3):60
National health care reform: an aura of inevitability is upon us, 50(7):223
Plantation News (Reprint of HMJ vol 1 no 1, 1941), 50(9):308
Publication authorized (Reprint of HMJ vol 1 no 3, 1942, pg 185), 50(9):310
The Robert T Wong MD Lectureship, 50(2):36
Taxation without representation, 50(8):274
To protect our environment, 50(3):60
Tuberculosis, 50(12):408
War came to Hawaii (Reprint of HMJ vol 1 no 3, 1942, pgs 139-140), 50(9):313
What is AMA-ERF?, 50(2):39
Working women, 50(1):4
'The Bulletin is dead. Long live the Journal.' (Reprint of HMJ vol 1 no 1, 1941), 50(9):308

ELECTROMAGNETIC FIELDS
Electromagnetic fields: biological and clinical aspects, 50(3):113

ENVIRONMENTAL EPIDEMIOLOGY
Environmental epidemiology: an introduction to its merits and problems, 50(3):81

ETHICS
Doctor to patient, doctor to colleague: the ethics of medical practice, 50(4):143

FAMILY
The family as victim in trauma, 50(4):153

FIRE FIGHTERS
Risk of death among Honolulu fire fighters, 50(3):82

FRIENDS OF THE MEDICAL SCHOOL
The friends of the Medical School, 50(8):280

GENETICS
Psychiatry and molecular genetics: a paradigm shift, 50(12):416

GRATEFUL MED
Grateful Med: gateway to world-wide literature, 50(12):419

HAWAII
Anisakiasis in Hawaii: a radiological diagnosis, 50(6):202
Birth of the first 100 babies in Hawaii after conception in-vitro: experience at the Pacific In-Vitro Fertilization Institute, 50(10):358
Caveat doctor! Tuberculosis in physicians, 50(12):414
Compliance with Hawaii's Workers' Compensation Law, 50(4):139
Electromagnetic fields: biological and clinical aspects, 50(3):113
Evaluation of human exposure to the heptachlor epoxide contamination of milk in Hawaii, 50(3):108
The health status of working women in Hawaii, 50(1):18
Hereditary anemias in Hawaii (Reprint of HMJ vol 46 no 8, 1987), 50(9):334
Human anisakiasis transmitted by marine food products, 50(1):9
Lead poisoning in Hawaii: 1990, 50(3):89
The Maluhia Project: home health care for the uninsured, 50(5):173
The relative safety of Hawaii's drinking water, 50(3):173
A review of some tumors of interest for demographic study in Hawaii (Reprint of HMJ vol 33 no 8, 1974), 50(9):326
Risk of death among Honolulu fire fighters, 50(3):82
Sarcoidosis: a Hawaii rarity, 50(6):204
Testing of blood donors for antibody to HCV: the Hawaii experience, 50(7):231
Toxic substances in the environment affecting respiratory function of people in Hawaii, 50(3):101
Traumatic spinal cord injury in Hawaii, 50(2):44
What to do with the patient with a positive HCV antibody test, 50(7):254

HAWAII MEDICAL ASSOCIATION
Address to the House of Delegates 134th Annual Scientific Meeting, Hawaii Medical Association, 50(2):42
Committee Report of Senior HMA Physicians, 50(12):411
Highlights of the HMA Council Meeting of December 7, 1990, 50(1):7
Highlights of the HMA Council meetings, February and March, 50(4):137
Highlights of the HMA Council Meeting of April 5, 1991, 50(5):170
Highlights of the HMA Council Meeting of May 3, 1991, 50(6):201
Highlights of the HMA Council Meeting of June 7, 1991, 50(7):227
Highlights of the HMA Council meetings, 50(10):354
Highlights of the Proceedings of the House of Delegates of the Hawaii Medical Association 11-13 October 1991, 50(11):384
Highlights of the Scientific Sessions of the Hawaii Medical Association 11-13 October 1991, 50(11):387
Highlights of the special meeting of the HMA Council July 5, 1991, 50(8):278

HAWAII MEDICAL FELLOWSHIP FOUNDATION
The Hawaii Medical Fellowship mission to China, 50(10):357

HAWAII MEDICAL JOURNAL
The decade of the eighties in the Journal, 50(9):334
The decade of the fifties in the Journal, 50(9):315
The decade of the forties, 50(9):310
The decade of the forties in the Journal, 50(9):307
The decade of the seventies in the Journal, 50(9):326
The decade of the sixties in the Journal, 50(9):319

Hawaii Medical Journal Annual Report 1990-1991, 50(10):354

HCV ANTIBODY TEST
What to do with the patient with a positive HCV antibody test, 50(7):254

HEPATITIS C VIRUS
Hepatitis C virus: an overview, 50(7):229

Testing of blood donors for antibody to HCV: the Hawaii experience, 50(7):231

What to do with the patient with a positive HCV antibody test, 50(7):254

HEPTACHLOR
Evaluation of human exposure to the heptachlor epoxide contamination of milk in Hawaii, 50(3):108

HEREDITARY ANEMIAS
Hereditary anemias in Hawaii (Reprint of HMJ vol 46 no 8, 1987), 50(9):334

HIGH ALTITUDE
Medical consequences of acute exposure to high altitude, 50(3):96

HIGH SCHOOL ATHLETES
Sports medicine in Hawaii: care of the high school athlete in Oahu's public schools, 50(11):395

HOME HEALTH CARE
The Maluhia Project: home health care for the uninsured, 50(5):173

HYPOXIA
Medical consequences of acute exposure to high altitude, 50(3):96

IN MEMORIAM
In Memoriam: Harry L Arnold Jr MD, 50(9):300
Jeffrey M Nakamura MD, 1949-1991, 50(2):41

IN-VITRO FERTILIZATION
Birth of the first 100 babies in Hawaii after conception in-vitro: experience at the Pacific In-Vitro Fertilization Institute, 50(10):358

LEAD
Lead poisoning in Hawaii: 1990, 50(3):89

LEGISLATION
The Relative Value Studies: fixed conversion vs customary fees (Reprint of HMJ vol 26 no 2, 1966), 50(9):319

(Continued) ➤

SHERATON MAKAHA RESORT AND COUNTRY CLUB



THE KAMAAINA "WHOLE IN ONE" $85*
ROOM AND GOLF PACKAGE

Now you can play 18 holes of Oahu's most challenging golf (with a 74 USGA rating) at Sheraton Makaha West Course. Then relax and spend the night in our peaceful, country-club atmosphere. All at a special little "Whole in One" rate.

Just $85 per person, per night, Sundays thru Thursdays. $95 per person, per night on weekends. Play an additional round on the same day at a special rate (space available).

For "Whole in One" reservations call Sheraton Makaha at 695-9511.

* Per person, per night. Based on double occupancy. For a limited time only, subject to space availability. Single golfer rates also available. Rates do not include applicable state taxes. Proof of Hawaii residency required.

Sheraton Makaha
RESORT & COUNTRY CLUB
OAHU
ITT Sheraton

THERE IS SOMETHING YOU CAN DO ABOUT AIDS



Life Foundation
The A.I.D.S. Foundation of Hawaii
924-AIDS

Aloha United Way
It brings out the best in all of us.

Enclosed is my tax deductible donation to help The AIDS Foundation of Hawaii

Name _____

Address _____

_____ Donation $_____

MAIL TO: LIFE FOUNDATION
P.O. Box 88980, Honolulu, HI 96830-8980

LETTERS TO THE EDITOR
Re: award winners 1990 John A Burns School of Medicine Annual Biomedical Sciences Symposium, 50(1):4
Re: subarachnoid hemorrhage, 50(12):410
A response, 50(6):196

MARINE PARASITES
Human anisakiasis transmitted by marine food products, 50(1):9

MEDICAL ETHICS
Doctor to patient, doctor to colleague: the ethics of medical practice, 50(4):143

MEDICALLY INSURED
The Maluhia Project: home health care for the uninsured, 50(5):173

MILK
Evaluation of human exposure to the heptachlor expoxide contamination of milk in Hawaii, 50(3):108

MOLECULAR GENETICS
Psychiatry and molecular genetics: a paradigm shift, 50(12):416

MONOCLONAL ANTIBODIES
Monoclonal antibodies, 50(8):288

MORTALITY
Risk of death among Honolulu fire fighters, 50(3):82

NAKAMURA, JEFFREY M MD
Jeffrey M Nakamura MD, 1949-1991, 50(2):41

NON-A NON-B HEPATITIS
Hepatitis C virus: an overview, 50(7):229

OAHU
Sports medicine in Hawaii: care of the high school athlete in Oahu's public schools, 50(11):395

OCCUPATIONAL-HEALTH
Occupational-health training at the University of Hawaii, 50(3):86

PACIFIC IN-VITRO FERTILIZATION INSTITUTE
Birth of the first 100 babies in Hawaii after conception in-vitro: experience at the Pacific In-Vitro Fertilization Institute, 50(10):358

PATENT DUCTUS ARTERIOSUS
The surgical treatment of patent ductus arteriosus (Reprint of HMJ vol 14 no 5, 1955), 50(9):315

PATIENT CARE
What to do with the patient with a positive HCV antibody test, 50(7):254

PATIENT SATISFACTION
Patient satisfaction with physician care, 50(4):149

PHYSICIAN CARE
Patient satisfaction with physician care, 50(4):149

PSYCHIATRY
Psychiatry and molecular genetics: a paradigm shift, 50(12):416

RADIOLOGICAL DIAGNOSIS
Anisakiasis in Hawaii: a radiological diagnosis, 50(6):202

RBRVS
RBRVS: still good news for physicians, 50(8):279

RELATIVE VALUE STUDIES
The Relative Value Studies: fixed conversion vs customary fees (Reprint of HMJ vol 26 no 2, 1966), 50(9):319

REPPUN, J I FREDERICK MD
A tribute to J I Frederick Reppun MD: Hawaii Medical Journal Editor, 50(9):306

RESOURCE-BASED RELATIVE VALUE SCALE
RBRVS: still good news for physicians, 50(8):279

RESPIRATORY TOXICITY
Toxic substances in the environment affecting respiratory function of people in Hawaii, 50(3):101

RISKS
Risk of death among Honolulu fire fighters, 50(3):82

SARCOIDOSIS
Sarcoidosis: a Hawaii rarity, 50(6):204

SLEEP APNEA
Alcohol and sleep apnea, 50(8):282

SPINAL CORD INJURY
Traumatic spinal court injury in Hawaii, 50(2):44

SPORTS INJURIES
Sports medicine in Hawaii: care of the high school athlete in Oahu's public schools, 50(11):395

SPORTS MEDICINE
Sports medicine in Hawaii: care of the high school athlete in Oahu's public schools, 50(11):395

SUGARCANE BURNING
Toxic substances in the environment affecting respiratory function of people in Hawaii, 50(3):101

SURGERY
The surgical treatment of patent ductus arteriosus (Reprint of HMJ vol 14 no 5, 1955), 50(9):315

TRAUMA
The family as victim in trauma, 50(4):153

TRAUMATIC SURGERY
Principles of traumatic surgery (Reprint of HMJ vol 1 no 3, 1942, pgs 141 and 142), 50(9):312

TUBERCULOSIS
Caveat doctors! Tuberculosis in physicians, 50(12):414

TUMORS
A review of some tumors of interest for demographic study in Hawaii (Reprint of HMJ vol 33 no 8, 1974), 50(9):326

UNIVERSITY OF HAWAII
Occupational-health training at the University of Hawaii, 50(3):86

VOLCANIC FOG
Toxic substances in the environment affecting respiratory function of people in Hawaii, 50(3):101

WOMEN'S HEALTH
The health status of working women in Hawaii, 50(1):18

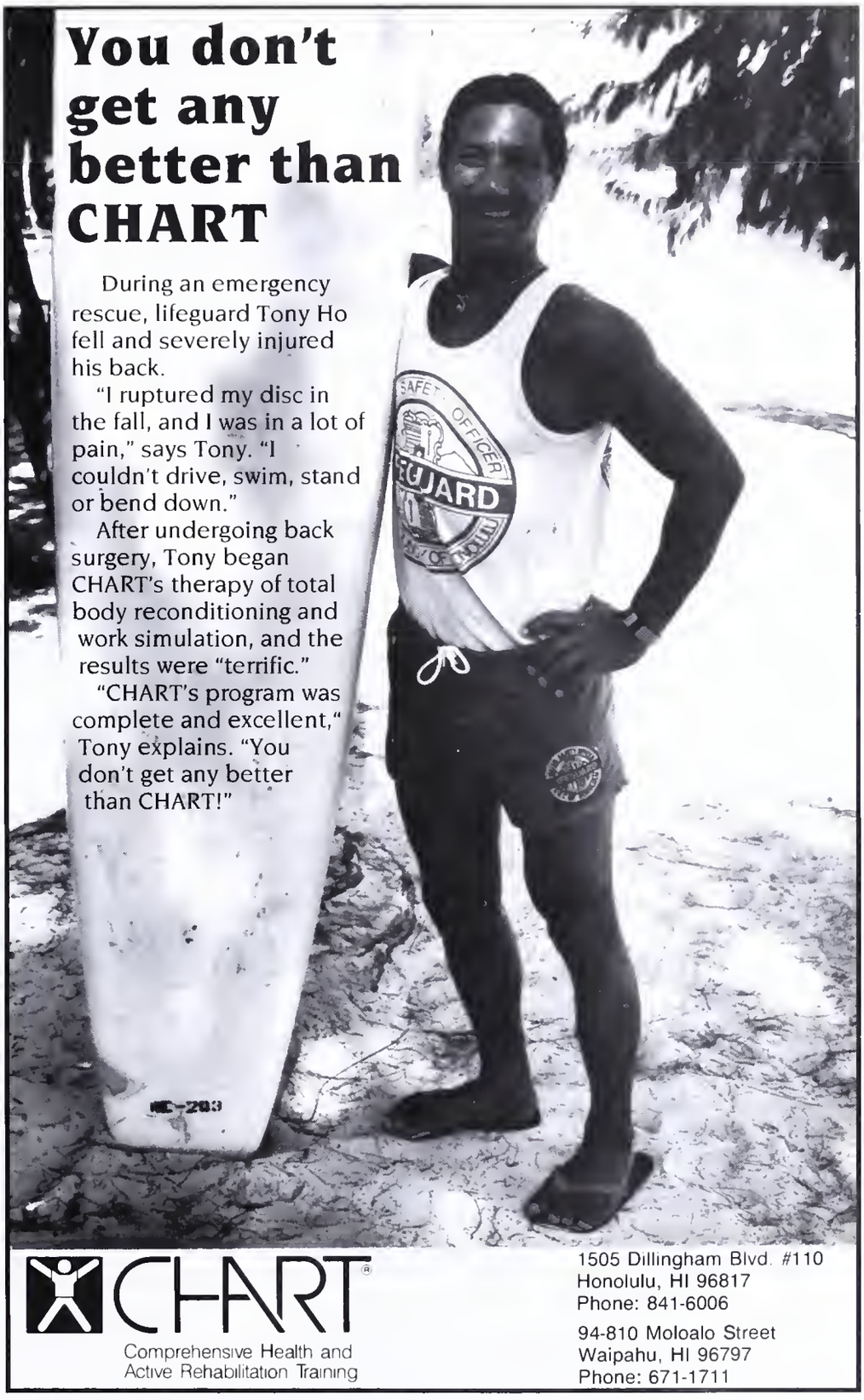
WORKERS' COMPENSATION LAW
Compliance with Hawaii's Workers' Compensation Law, 50(4):139

WOUNDS
Principles of traumatic surgery (Reprint of HMJ vol 1 no 3, 1942, pgs 141 and 142), 50(9):312

Authors Index

Alvarez-Pacpaco E - 50(9):334
Anderson BS - 50(3):89
Anderson K - 50(5):173
Arbeit W - 50(1):18
Au LKL - 50(3):71
Baker DB - 50(3):108
Barker J - 50(3):108
Batkin S - 50(3):113
Bolles ED - 50(9):313
Borgeson D - 50(32):82
Boyle JF - 50(8):279
Brown V - 50(4):153
Burgess CM - 50(9):315
Charles J - 50(6):204
Cherry JW - 50(9):315
Ching N - 50(9):315
Chun B - 50(10):358
Deardorff TL - 50(1):9
Ditzler TF - 50(8):282
Don A - 50(4):137, 50(5):170, 50(6):201, 50(7):227, 50(8):278, 50(10):354
Don E - 50(2):39
Dowling JJ - 50(12):416
Elpern DJ - 50(6):204
Frankel RI - 50(12):414
Freeman GC - 50(9):315
Frohlich J - 50(7):231
Fu DJ - 50(3):89
Fujita JT - 50(12):416
Fukumura T - 50(1):9
Fukunaga FH - 50(8):288
Gilbert FI - 50(9):307
Glober GA - 50(9):326
Goebert DA - 50(2):44
Grimes G - 50(3):82
Gulbrandsen CL - 50(1):4
Hale RW - 50(10):358
Halfon ST - 50(1):18
Hallenborg CP - 50(3):96, 50(3):101
Hamasu CC - 50(12):419

Hammon WM - 50(12):410
Hardman JA - 50(9):334
Hartwell AS - 50(9):315
Harvey LK - 50(7):220
Hashimoto HH - 50(3):86
Hayashida CT - 50(5):173
Hiller WD - 50(11):395
Hiramoto JT - 50(6):202
Hirsch D - 50(3):82
Horak BB - 50(12):419
Hsia YE - 50(9):334
Huang T - 50(10):358
Jim RTS - 50(9):326, 50(9):334
Kayes SG - 50(10:9
Kendro B - 50(9):310
Kodama AM - 50(1):18, 50(3):86
Kosasa T - 50(10):358
Krichbaum JA - 50(7):220
Lee-Gushi S - 50(8):282
Lehman CW - 50(30):89
Loo S - 50(3):108
Lum D - 50(8):280
Lumeng J - 50(9):334
Lundberg GD - 50(7):223
Marsh N - 50(3):101
Maskarinec G - 50(3):81
McCarthy MR - 50(11):395
McKinney W - 50(9):334
McNamee P - 50(10):358
Miiki L - 50(6):196
Moorhead JJ - 50(9):312
Morgan EJ - 50(11):387, 50(8):282
Morris J - 50(3):86
Morton C - 50(10):358
Moser SM - 50(3):101, 50(3):60
Newsome RD - 50(8):282
Ng MY - 50(2):44
Patrick V - 50(12):416
Phillips DL - 50(7):254
Rains VS - 50(8):282
Regent A - 50(4):139
Reppun JI - 50(1):4, 50(2):36, 50(3):60, 50(4):132, 50(4):132, 50(4):143, 50(5):169, 50(6):196, 50(7):220, 50(7):220, 50(7):226, 50(8):274, 50(9):302, 50(10):354, 50(10):355, 50(11):384, 50(11):387, 50(12):408, 50(12):411, 50(12):422
Reppun TS - 50(9):306
Rhoads GG - 50(9):326
Ring JJ - 50(2):42
Rockefeller IV JD - 50(7):223
Seekins SV - 50(7):220
Sheetz DA - 50(2):44
Silva J - 50(10):358
Soh G - 50(4):149
Stemmerman GN - 50(9):326
Strasberger A - 50(9):319
Tabrah FL - 50(3):113
Terada F - 50(10):358
Thomas RL - 50(9):319
Todd JS - 50(7):220
Tokeshi J - 50(6):202
Tsai N - 50(7):229
Varney JM - 50(2):44
Wiebe RA - 50(3):89
Wilkinson WR - 50(9):334
Wong BD - 50(10):357
Yates-McCarthy JL - 50(11):395

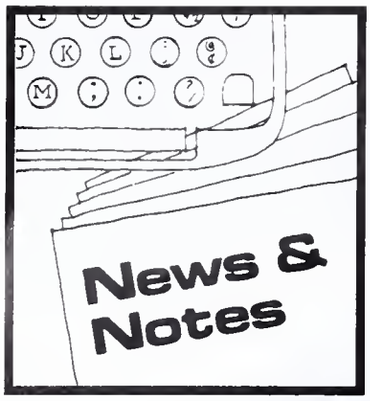


We'd like to introduce you to the newest spokesman for the American Heart Association.

Just as soon as he's born.

The same baby who, ten years ago, wouldn't have lived to speak his first word. But now doctors can look inside the hearts of unborn babies, detect disorders and correct them at birth. Thanks to research, he can have a healthy, normal life.

American Heart Association
WE'RE FIGHTING FOR YOUR LIFE



Henry N. Yokoyama MD

Miscellany

The country lad got off the bus in the big city to do his Christmas shopping. He ventured into a large department store to buy some deodorant. The overworked salesclerk in the men's toiletries section finally waited on him. "Lady, what do you have in men's deodorants?" "Sir," the harried young lady said, "We have 40 different brands and types. Did you want the ball type?" "No," the lad replied, "I want the underarm type." (Gleaned from ole friend, Joe Sykes' joke book, "The Obscene Jester.")

* * *

The third grade teacher on the first day of school decided to log the students' names and their father's professions. As she went through the classroom, she came to Alvin. "What is your name, young man?" "Alvin," was the reply. "My, that's a nice name. Now, Alvin, what does your father do?" "My father don't do nuthin'. He's dead." "Oh, goodness! I'm sorry Alvin. What did your father do before he died?" "Well, he grabbed his chest and went like this, 'EE-AAAHHH-CCCH!'." (Another Joe Sykes rendition)

Conference Notes

"Nuclear Energy, Nuclear Accidents and Nuclear War", Robert Gale, Visiting Professor and author of "Final Warning" spoke at Mabel Smyth on January 31. Random notes therefrom:

"People have difficulty distinguishing nuclear technology from nuclear war." "Nothing magical about nuclear technology — we're simply boiling water." "Nuclear accidents are a combination of technological accidents and human error." "Couple of messages: There are no secrets in our nuclear age — *Lancet 5* covers the former Soviet Union every 2 hours. An accident anywhere is an accident everywhere — it's a global event."

Response to nuclear emergency: a. assessment; b. containment; c. reducing exposure; d. dose estimation; e. medical intervention.

re Chernobyl Disaster: Evacuation 30-mile radius; 250,000 persons involved in clean up; each person received a lifetime dose working 2 minutes; entombment required 300,000 tons of concrete.

re Dose Estimation — Biologic dosimetry: a. N & E; b. granulocyte kinetics; c. lymphocyte kinetics; d. platelets and reticulocyte kinetics; e. cytogenetics; f. genetic mutations.

re Radiation Effects — a. Alpha particles: large mass (2 protons and 2 neutrons); cause superficial injuries; b. Beta particles (electrons); small mass; can be stopped by wood; cause skin lesions; c. Gamma rays (electrons); go through everything; cause both superficial and deep injuries — especially bone marrow; d. Neutrons: cause intermediate injuries.

"Bone marrow is most important. The heart simply moves chemotherapy around."

Treatment: a. antibiotics and transfusions; b. hematopoietic growth factor (GM-CSF); c. transplants.

Medical consequences: a. cancer; b. teratogenic; c. genetic disorders.

"In the next 50 years, 2 million to 20 million will die of cancer. Half in the former Soviet Union and the other half outside, especially in eastern and western Europe."

It takes 5 to 10 years for leukemia to develop. Most cancers are solid tumors and will taken 30 or more years to develop.

Alternative sources of energy and their associated problems

Nuclear: waste disposal, accidents and risk
Oil: pollution, scarce resource
Hydroelectric/Wind: inadequate for needs
Coal: pollution
Solar: inadequate for needs with current technology

Commentary: "Warm hearts and cool heads" must prevail. Global warming is predominantly caused by burning fossil fuels. U.S. Energy Consumption — The U.S. population is only 5% of the world population and yet uses 25% of total world energy output. One-third of U.S. debt caused by oil consumption.

Background Radiation Levels in the U.S.:

	Annual	Lifetime
New York (sea level)	800 u Sv	6 c Gy
Colorado	3,500 u Sv	25 c Gy

"People react differently to radiation. People react in irrational ways to radiation." Eighty-two percent of background radiation is natural radiation and 18% is man-made, eg X-rays, scans, TV, microwave ovens, etc.

Nuclear Powers	Nuclear Energy Used
France	70%
South Korea	47%
West Germany	34%
Japan	25%
U.S.	20%
Former Soviet Union	11%
India	3%

"Heat not a furnace for your fire so hot that you singe thyself." *Henry VIII*

Comparisons of Chernobyl disaster to other causes of death (in 70-year span)

Chernobyl	25,000
Fossil Fuel	1,000,000
Automobiles	4,000,000
Tobacco	10,000,000

"Don't waste your time making preparations for nuclear disaster."

Consequences in U.S. of a 6,000-megaton Exchange

U.S. population	240 million
Dead	124 to 167 million
Injured	30 to 50 million

"Rational people will still use nuclear weapons".

"Rationality will not prevent the use of nuclear bombs".

"The dissolution of the Soviet Union has not decreased the danger of nuclear war."

"We don't have to share beliefs ... just a planet".

Life in These Parts...

Should Nurse Practitioners Prescribe Medication?

Dr John Lewin, State Health Director says, "It can be done in partnership with doctors — and not in conflict with them."

Stephen Wallach, HMA president says: "I need to be more convinced. I'm not sure public safety is their first consideration."

Of Boobs and Books...

"Dr Robert Flowers, best known for the "Boobs by Bob" T-shirts he gives to breast implant patients, has just accepted an invitation to co-author the first Croatian language book on plastic surgery with Dr Bosko Milojevic, Croatia's best known cosmetic surgeon, who studied with Bob some years ago."

(Don Chapman, January 13, 1992)

Now a frozen in vitro baby ... What Next?

The Pacific In-Vitro Fertilization Institute, founded in 1985, has a track record of 160 in vitro babies born. Now it has a frozen embryo baby born on December 29. OB/GYN Phil McNamee, one of the founders, hopes his next breakthrough will be a micro-manipulation pregnancy (ie, a procedure that involves drilling tiny holes on an egg so that sperms can penetrate easier).

Professional Moves

December: New Straub physicians

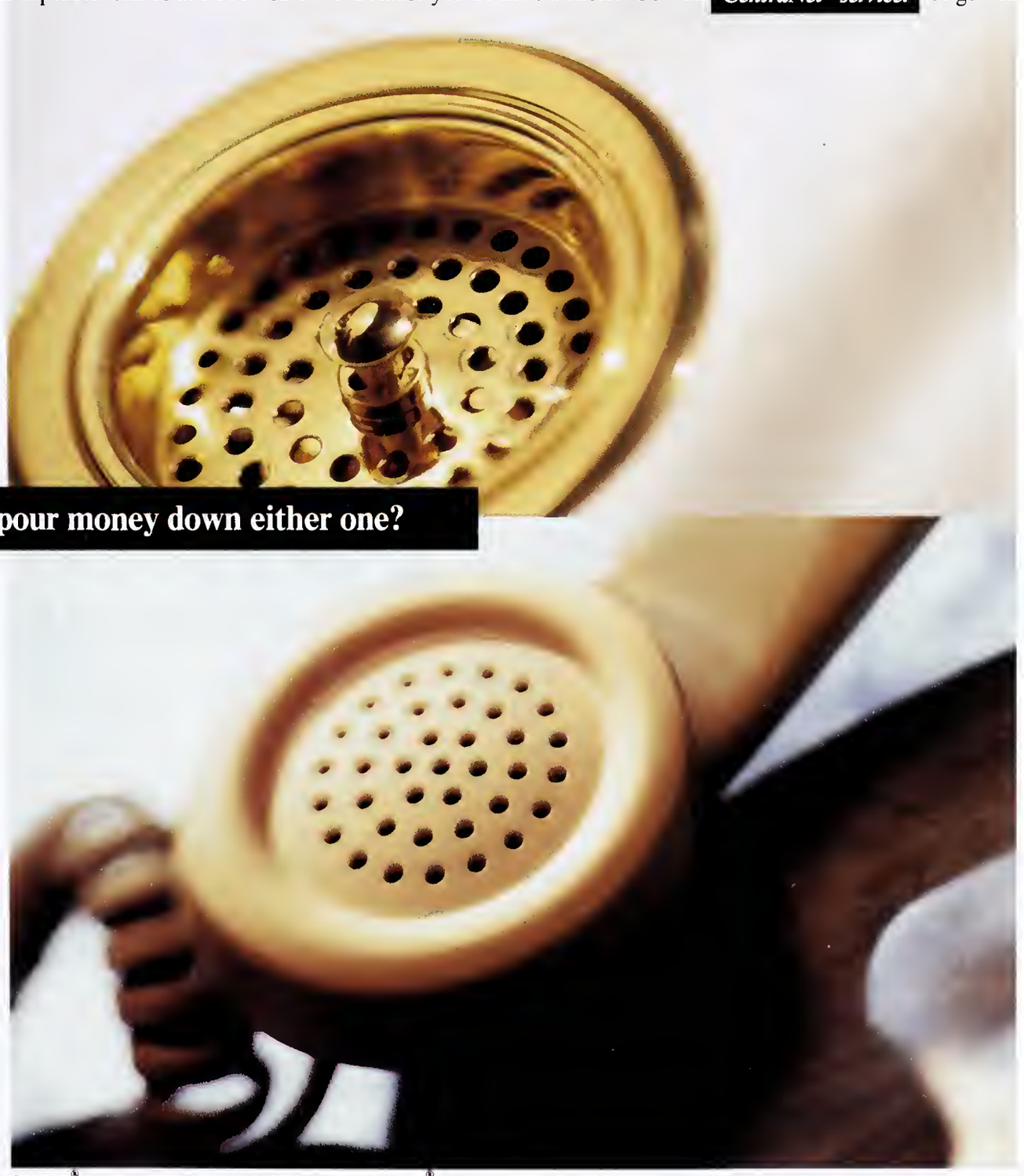
OB/GYN: Philip Browning, Kaneohe Family Health Center

FP Medicine: Bruce Chung, Kailua Family Health Center

Chest Diseases: Elaine Imoto, King Street

(Continued) ➤

OK. Let's get down to business.™ Funny how the two objects below resemble one another. But if you had to invest a sizeable chunk of your cash flow in a new phone system, you might fail to see the humor. Which is why you should know about CentraNet® service from GTE Hawaiian Tel. With CentraNet,® you get all the features and flexibility of the most sophisticated business telephone system, without a large capital outlay. So there's no risk of buying too much system, or too little. In fact, there's hardly a risk at all. Because everything you need for CentraNet® to work on your phones is located at our office, not yours. And, you can add lines or change features anytime. For example, if you have an office in one location and expand to another, you can connect the two without incurring any additional expenses. Call us at 1-800-462-6000. Because you do have a choice. Go with ***CentraNet® service.*** Or go with the flow.



Why pour money down either one?

CentraNet® is a registered service mark of GTE Corporation. CentraNet® service is available in most areas.

GTE Hawaiian Tel

Beyond the call

Internal Medicine: Lois Saruwatari, Financial District Clinic

Orthopedics: James Scoggin III, King Street

Pediatrics: Paula Wyatt, Hawaii Kai Family Health Center

Orthopod Brian Stephens joined the Kauai Medical Group

January:

Cardiologists Neal Shikuma and Stanley Kawanishi announced the formation of Hawaii Cardiology Inc with offices in Honolulu and Ewa.

OB/GYN David McDonald joined the Kauai Medical Group, Inc

Bruce Chrisman retired from full-time practice and Robert Peterson took over.

William Dung, president of the Hawaii Permanente Medical Group for 20 years retired at the end of 1991. Michael Chaffin, executive VP and president-elect since 1990 was named president of HPMG, which has 270 physicians.

February:

Alan HS Cheung, board-certified in general surgery and transplantation, joined Livingston Wong, Fong-Liang Fan and Whitney ML Limm. The Surgical Associates, Inc has offices at St Francis MOB, Ste 208, and The Queen's POB II, Ste 709.

Hors De Combat

Pat Saiki, our favorite former U.S. Representative and now Small Business Administration head said in a speech to the 12th National Legislative Congress on Small Business Issues in Kansas City: "A plan to require businesses nationwide to either offer health insurance for employees or pay a special tax for government-provided insurance for workers is unacceptably risky and basically impractical. When you analyze it, 'play or pay' will definitely devastate small businesses."

State DoH director John Lewin MD, who spent much of the past year lobbying in Washington for national health-care reform feels otherwise: "We need to dispel the myth that requiring everyone to have insurance increases health care costs ... It actually reduces them."

Sportsmen

The Annual Accupath Golf Tournament was held Thursday, March 12 at the Hawaii Kai Golf Course. It poured icy rain all 18 holes of play yet most of the die-hards finished with rain jackets soaked through and fingers frozen stiff. The format fortunately called for discarding the worst score. The fellowship was great and there were door prizes for everyone. Physicians winners were:

1st place: Bill Dang - net 59
2nd place: Peter Wai - net 59
3rd place: George Shimamura - net 60
4th place: Kevin Chen - net 61
5th place: Ray Wong - net 61
6th place: Albert Tomai - net 61
7th place: I Rahman - net 61
10th place: Francis Soon - net 64
11th place: Thomas Teruya - net 64
12th place: Roy Niimi - net 65
18th place: Herman Mercado - net 68
19th place: Mike Okihiro - net 68

* * *

Hear about the lady golfer who was stung by a bee? She rushed back to the clubhouse where the pro directed her to a doctor's office near by. The doctor asked: "Where were you stung?" "Between the 1st and 2nd holes." The good doctor, a golfer himself, replied, "Then your stance is too wide."

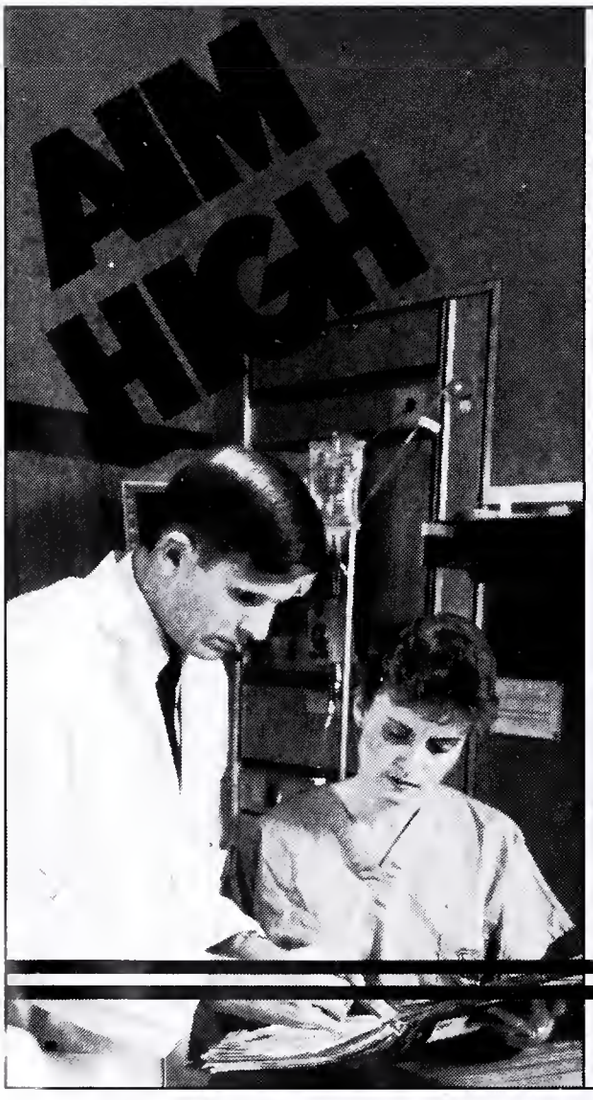
(As told by humorist Cas Jasinski)

Quotables

Re RBRVS: "Under current regulations, a car mechanic gets more for examining a car than a physician receives for a complete physical examination of a patient." Martin Edelstein MD, Great Neck, NY (From *Medical World News*, January 1992)

* * *

"We Rent Sewer Snakes for Stuffed Up Heads" Sign, Hawaiian Rent All (Corner of



BE AN AIR FORCE PHYSICIAN.

Become the dedicated physician you want to be while serving your country in today's Air Force. Discover the tremendous benefits of Air Force medicine. Talk to an Air Force medical program manager about the quality lifestyle and benefits you enjoy as an Air Force professional, along with:

- 30 days vacation with pay per year
- Dedicated, professional staff
- Non-contributing retirement plan if qualified

Today's Air Force offers the medical environment you seek. Find out how to qualify. Call **USAF HEALTH PROFESSIONALS TOLL FREE 1-800-423-USAF**

AIR FORCE

McCully and Beretania streets) (Ed, our favorite humorist is back)

* * *

Pat Says:

Poll question: "What's the bigger problem: ignorance or apathy?"

Man on the street: "I don't know and I don't care."

Pat says: "That's the trouble with this world."

* * *

Pat says, "Tomorrow is already gone." "Why?"

"We worry so much at present about those mistakes we made in the past which may screw up tomorrow." "That's why."

(As told by Pat Kenney, our tennis playing philosopher)

Physicians Speak Up

Gene Altman notes that a national catalog offers an accurate alcohol breath analyzer for $149 made by the same company that supplies police departments. Gene suggests that bars and restaurants serving alcohol and even safety-minded private party hosts could offer this simple test free to imbibers [Ed/We think the idea merits looking into].

JAMA editor George Lundberg in the December issues states: "I want all physicians to take it as a personal responsibility to confront every patient they see about tobacco ... and to badger them about their tobacco use." [Ed/Locally, crusading ENT man Hideo Oshiro has been doing just that for the past 30 years.]

Oncology Conference

Case of a 77-year-old woman with obstructive jaundice and a pancreatic lesion.

Oncologist Ken Sumida: "This is a 72-year-old woman who is a therapeutic dilemma. One year ago she was worked up for abdominal discomfort and a CT scan showed a pancreatic mass. She had a gastrojejunostomy and a cholecystectomy. Biopsy of the pancreatic head showed chronic pancreatitis rather than adeno Ca. Rather than irradiate the mass, we opted to follow with CT scans. More recently, she developed jaundice. ERCP was suspicious for pancreatic Ca, but needle biopsies again did not show Ca. She is an extremely functional 77-year-old even with her past history of PVD and CVA in 1989."

Radiologist Dave Sakuda projected the CT scans dating back to May 1990 which showed cystic dilation of the pancreatic duct. The post op scan showed further dilation and a recent CT scan showed biliary duct dilation as well. "The ERCP shows something blocking the duct, and we worry about Ca." Pathologist Larry McCarthy apologized: "This has been a difficult problem. The 1990 biopsy tissue showed no tumor cells. There is fibrous tissue with inflammation and a few ducts. Our report went out as 'chronic pancreatitis'."

Moderator Glenn Kokame: "The surgery

(Continued) ➤





The only place on Earth not governed by Murphy's Law.

Meet here and you simply can't go wrong.

Our seasoned Convention Services Manager takes care of everything. All 1,346 rooms have a picture view. Three ballrooms and 11 meeting rooms provide ample space.

You can't beat our catering staff and six restaurants for fine cuisine (which you can work off at our two pools and tennis court). And we're in a perfect spot overlooking Waikiki Beach.

So, you see, if something can go right, it will. That's Hawaiian Regent's Law.

For more information, call 808-921-5184.

Hawaiian Regent

A New Tradition in Hawaiian Hospitality.

Otaka Hotels and Resorts

2552 Kalakaua Avenue

Honolulu, Hawaii 96815-3699

If you do business in Hawaii . . .

and find it valuable to know who's suing who or who's getting hit with tax liens, going bankrupt, getting incorporated, selling property, being dissolved, or getting promoted

. . . we have news for you

PACIFIC BUSINESS NEWS

For information call 521-0021.



SUNSETS FOR JUST $99.

PER ROOM
3 GUESTS
MAXIMUM

- View glorious Poipu sunsets from our luxury resort — at a special rate for Kamaainas.
- Affordable extras! Golf, tennis, Polynesian luau and show. Our famous gourmet Sunday brunch. The broadway musical, "South Pacific," in its natural setting.
- Offer through 11/30/92. Call toll-free at 1-800-426-4122.

STOUFFER
WAIOHAI BEACH
RESORT

POIPU BEACH, KAUAI, HAWAII

CARE plants the most wonderful seeds on earth.

Seeds of self-sufficiency that help starving people become healthy, productive people. And we do it village by village by village. Please help us turn cries for help into the laughter of hope.



1-800-521-CARE

is confusing to me. She had a gastrojejunostomy and then a cholecystectomy." Larry explained, "She had gallstones." Glenn was not satisfied: "She is 77, and she probably had stones all these years." Cancer Research Center director Brian Issell was asked if there were any new drugs for pancreatic Ca. Dr Issell was brief: "None." Someone asked, "How about laproscopic biopsy?" Glenn: "The pancreas being retroperitoneal is hard to expose. You have to do a blind biopsy. If the patient has 1 or 1½ years survival time left, a surgical decompression could be recommended. Stents are hard to keep open."

David Sakuda was confident: "Stents are easily done, and we do them on preterminal patients. The question is the quality of life." Ken: "The surgeon is reluctant to do a surgical decompression because he will have to take down the gastrojejunostomy." Grant Stemmerman added, "There is a 5% survival of pancreatic Ca at 6 months. She is now 18 months and this raises the question of pseudo-tumor rather than adeno Ca." Glenn quipped, "In other words, give her a 10-foot pole. David, can you do a percutaneous trans-hepatic catheterization on her?" David reported smugly, "She's already been decompressed."

Miscellany

JOKES WE THOUGHT FUNNY

A busy surgeon returned home from a 2-week hunting trip complaining angrily to his wife, "I didn't kill a damn thing!" "Well darling," she replied, "that's what you get for neglecting your practice."

(*Party Jokes PB* February 1992)

* * *

A farm boy accidently overturned his wagonload of corn on the road. A farmer who lived nearby went over to look. "Hey Willis," he called, "ferget yer troubles for a spell and have dinner with us. I'll help you with the wagon later." "That's mighty nice of you," Willis said, "but I don't think Pa would like me to." "Aw, come on, son!" the farmer insisted. "Well, OK," the boy finally agreed. "But Pa won't like it." After a hearty meal, Willis thanked his host. "I feel a lot better now, but I just know Pa will be upset." "Nonsense," the farmer said. "Where is your pa, anyway?" "Under the wagon."

(*Party Jokes PB* February 1992)

Oncology Dialogue

A 23-year-old single man has teratocarcinoma of the testicle. Oncologist Clayton Chong explained that chemotherapy is so effective that there is no need for retroperitoneal surgery, which causes infertility and retrograde ejaculation. He felt that the case calls for careful surveillance by following tumor markers, CXRs q 2 months and CT scans. If there is recurrence, it will occur within 6 months. If no recurrence within the period, the patient is cured.

Surgeon moderator Glenn Kokame reported that retroperitoneal nerve-sparing surgery bilaterally causes retrograde ejaculation while unilaterally does not. Oncologist Ken Sumida: "We plan intensive observation after normalization of tumor markers." Glenn asked, "How about the role of radiation?" Radiotherapist Ed Quinlan: "Very little place for radiation." Vince Brown agreed: "No role." Glenn called on Grant Stemmerman: "Stemmy, how about epidemiology?" Stemmy: "It is less common in Japanese here than in Japan. Less in blacks and whites. It's a disease of specific groups." Clayton: "MD Anderson epidemiology data shows an association with hernia repair for seminomas. Germ cell tumor patients would be dead. Netherlands data shows that the 12th chromosome may predict testicular tumors." Glenn asked, "How about chimney sweeps?" Stemmy: "That's for scrotal cancers."

In Memoriam

Masato Hasegawa — A man for all seasons and an avid polo player.

MM Hasegawa, 84, died quietly at his Nuuanu home on April 24, 1991. No funeral services were held and his ashes were scattered at sea with the ashes of his 2 beloved dogs, the Irish wolfhound and the Weimaraner.

Masato was a colorful and witty intellectual adored by all. Masato was born in Wahiawa, attended Hilo High, and San Mateo Junior College, and graduated from U of California in 1940. He was attending U of C med school when he war broke out and was interned with the west coast Japanese.

In 1943, Masato joined the 442nd Combat Team and when the war ended, he continued his medical studies at Wayne State School of Medicine, graduating with distinction. After interning in Detroit, he served with the Military Sea Transport Service as a ship's surgeon and mustered out with the rank of Captain. He then continued as a resident in pediatric surgery at Harvard and at our Children's Hospital.

Since 1953, Masato served as chiefs of staff at Kapiolani Maternity Hospital, Children's Hospital and The Queen's Hospital. Masato was a founding member of Aloha United Way, and was twice commended by the State Senate for his services to the State and community.

In 1974, Masato earned a master's degree in business administration and in 1987, was a PhD candidate in economics. He lectured extensively in the UH Schools of Nursing and Social Work. He was a scholar and gentleman to the end.

We shall fondly remember Masato as a comic character, attired in polo outfit and driving his sports model Jaguar with 2 huge dogs squeezed in the front seat and polo stick protruding from a car window ... ■

Maka O Ke Kauka

Russell T. Stodd MD

Insurance covers everything except what happens.

In Michigan, a circuit judge upheld a Michigan Insurance Commission decision requiring Blue Cross/Blue Shield to pay radial keratotomy claims made by patients. Previously, the Blues denied reimbursement, stating the procedure was *experimental.* After several days of testimony, Judge Edward Rogers ruled against the carrier, stating that the procedure was incorrectly labeled, and was not experimental. The reimbursement was projected at $425/eye, considerably less than the fee, but more importantly, it is now an established health insurance precedent. But our Blues is Hawaii Medical Services Association, and our Blues says, "No way, Jose! HMSA will not pay."

To most people nothing is more troublesome than the effort of thinking.

The American Public Health Association's Governing Council is on the way to losing its medical credibility. Last year, with a surprise resolution generated by optometrists, the APHA encouraged states to expand optometric scope of practice to include prescription of therapeutic drugs. This year, ophthalmologists offered a resolution that would keep APHA encouraging appropriate education, training and competency for those who practice medicine. The Council refused to accept the resolution, stating that an expanded optometric scope would help inner city areas, however, the Council failed to recognize that inner city areas tend to have advanced pathology. It would appear that APHA is likely to be a platform for the other para-medical pretenders who seek to legislate their way to the practice of medicine. Is anyone on APHA's Governing Council thinking?

One man's error is another man's data.

Optical Radiation Corp wanted to get into the lucrative viscoelastic mar-

(Continued) ➤

ABQAURP

THE AMERICAN BOARD OF QUALITY ASSURANCE
& UTILIZATION REVIEW PHYSICIANS

ANNOUNCES THE HAWAII CME JULY 1-5 ON THE ISLAND OF KAUAI AT THE NEW HYATT REGENCY

VERY SPECIAL ABQAURP GROUP RATES FOR OCEAN VIEW ROOMS:
$150 PER NIGHT

"Quality Issues: A '92 Update"

A LIMITED NUMBER OF SEATS ARE AVAILABLE FOR LOCAL NON-DIPLOMATES AT THESE REDUCED RATES: $250-PHYSICIANS, $125-OTHER HEALTH CARE PROFESSIONALS.
(CATEGORY I CME CREDIT APPLIED)

EARLY REGISTRATION FOR THIS SEMINAR WILL ENSURE YOUR RESERVATION AT THESE REDUCED PRICES.

CONTACT:

ABQAURP

4890 W. KENNEDY BLVD SUITE 260 HMJ TAMPA, FL 33609

Ph. (813)286-4411 Fax (813)286-4387

MAKE YOUR HOTEL RESERVATIONS TODAY BY CALLING THE HYATT REGENCY AT (808) 742-1234

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

ket. Ideally, the product would be synthetic, so they could avoid the thorny field of infringing on products already in use. After some delay, ORC marketed Orcolon, receiving Food and Drug Administration approval in March 1991. Unfortunately, it is now evident that a flurry of red flags that preceded approval were apparently ignored. An uncontrollable glaucoma has been reported to result from use of Orcolon, with some cases of blindness, 33 reported cases of emergency surgery, and at least 250 reports of adverse reactions. ORC voluntarily took the product off the market in October 1991. Now a criminal investigation is underway as to why the product was approved in the first place since clinical evidence showed the product could cause complications. In 1988, Wendell Lee, research director at ORC, noted that there were problems making Orcolon, a synthetic viscoelastic. Lee was subsequently fired, he says, because he refused to falsify data. Gregg Whitaker, senior VP of ORC, says Lee was fired for poor performance, and he blames the adverse reactions on "one batch of contaminated raw materials." The FDA team is now investigating among other things, whether senior officials pressured the lead reviewer into signing off on Orcolon, and whether any officials had questionable ties to the company. And, in addition (whoopee, bugler sound the charge!), a Congressional oversight panel is about to launch a systematic review of the way the FDA approves medical devices.

An ounce of image is worth a pound of performance; a good slogan beats a good solution.

One can join AMPAC, HAMPAC, OPHPAC and/or contribute directly to your favorite politician, but a frontal approach with a good idea could accomplish much more. Robert Reinicke MD, past president of AAO, and active medical politician, offered the thought to Harris Wofford, then the underdog in the Pennsylvania race for U.S. Senate, that *if an accused criminal has a right to a lawyer, why should a sick person not have a right to a physician?* Wofford liked the idea, used it for his feature television campaign message, and went from 44 points behind in August to become a winner in November. The White House and Congress took immediate notice, and began to spin the health care turbines, proving again that one carefully articulated thought can have profound repercussions.

When things just can't get any worse, dial MICRA.

St Paul Fire and Marine Insurance Company, a long-time medical liability underwriter, is seeking rate hikes in 20 states where it writes such coverage. Increases would range from 5% to 25%, depending on specialty, years in practice, location, and number of years with the company. Meanwhile MICRA, the malpractice statute passed in California in 1975, has demonstrated that the problem can be altered. In 1975, the state of California was number *one* in cost of malpractice premiums, but after 16 years of MICRA, California docs are 35th in the country. Everyone is happy with the law except the trial attorneys.

It has the subtle flavor of an old pair of socks.

So, one door closes for the lawyers, but another one opens. Staar Surgical Company has filed suit against American Medical Optics (AMO) over foldable lens implants. Staar and AMO reached settlement in 1990 in their original dispute over foldables, but Staar is now alleging AMO committed fraud, deceit, patent infringement and misrepresentation. Staar wants $50 million in damages, and a temporary and permanent injunction to prevent AMO from continuing to make silicone lenses.

Aloha and keep the faith.

rts

CLASSIFIED NOTICES

To place a Classified Notice, MEMBERS, please call Association Office at 536-7702. NON-MEMBERS, please call Leilani at 521-0021. 4 line min., approx. 5 words per line. Payment must accompany order.

EMPLOYMENT OPPORTUNITY

POSITIONS AVAILABLE

Physician Placement Hawaii has openings for physicians & other medical professionals all across the U.S. Mainland as well as here in Hawaii. We also have candidates interested in a Hawaii position. Call Earl Pajari at 395-7099.

Progressive group of five BC family physicians seeks a BC/BE FP to join us in central Washington community of Ellensburg. We offer a full spectrum of family medicine in a newly remodeled clinic. Ellensburg is a rural community with a population of 13,000 and home to a major state university of 6,000 enrollment. Outdoor recreation within 30-60 minutes includes skiing, hiking, water sports, fishing and hunting. We are two hours from Seattle and 35 miles from Yakima, a regional medical center. We offer a competitive salary/benefit pkg. with opportunity to join partnership after one year. Interested candidates should respond with current CV to: Don Solberg, M.D. or Judy Nielsen, Clinic Manager, Valley Clinic, 716 E. Manitoba, Ellensburg, WA 98926, or phone (509) 925-3151.

OFFICES

WILL CONSIDER ALL OFFERS

AINA HAINA PROFESSIONAL BUILDING

1,064 sf turnkey previous medical ofc. & 837 sf ofc. space available. Lots of parking.

GREAT LOCATION

Carolyn Schnack Darrow (RA) 373-9644

REAL ESTATE

MANOA

Best street. 4 bd., 3 ba. Divorce forces sale. Gaylyn Li-Ma 530-1266 (pager) 946-0646

$$ HIGH YIELDS- -LOW RISK $$

Real Estate Mortgages available for investment from 25K to 250K. Yield 3x - 5x bank CD rate depending on term & risk. Call Bob or BC at Hawaii Federal Mortgage (942-5626) to receive our newsletter.

$$$ THE LOAN ARRANGERS $$$

SERVICES

CHINESE ACUPUNCTURE CLINIC

Exp. acupuncturist. HI lic. Wants referrals. Car acc., low back, work comp, stop smoking, lose wt.

1155 Maunakea St. 533-2498 LeAnne Chee

LOCUM TENENS PROVIDED

Internal Medicine and Family Practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS AVAILABLE

Family Practice, Pediatrics, Urgent Care.

No agency fees. Deal direct. 923-2981.

ATTENTION RADIOLOGISTS!!!

Been working too hard in paradise? Help is available!! Contact Shery! North, M.D. for professional Locum Tenens. Call or write 5878 Bowcroft Street, #1, Los Angeles, CA 90016. 310-839-0733. Then relax while I work!

Listen to your heart.

Sandra called me on the way to work to remind me about our family dinner tonight.

Emily left a message on my AMS: 'I love you, Daddy.'

I called her back and said, 'I love you, too.'

Nothing feels better than keeping in touch.

Island-wide coverage. Personalized service. And more cellular options to meet your communication needs. At Honolulu Cellular, we know phones aren't just for business any more. Because some things are too important to lose touch with.

Discover the communication choice you can depend on.

Only at Honolulu Cellular.



We feature state-of-the-art cellular phones by Motorola.



Honolulu Cellular

Hawaii's Cellular Leader

1161 Kapiolani Boulevard / 545-4765 • Grosvenor Center, 737 Bishop Street / 528-6161 • 98-1238 Kaahumanu Street, Suite 100 / 487-CELL

SPECIAL OFFER!
NO FEE DURING MAY, 19



Take along the check that's good from Alexandria to Aiea.

Money talks. And all over the world, merchants listen when you carry MasterCard® Travelers Cheques.

They're accepted in more than 200 countries. Respected worldwide. And if they're misplaced or stolen, you're not out a dime. MasterCard Travelers Cheques are refundable and replaceable 24 hours a day.

So, even if you can't pronounce the name of Egypt's currency, don't worry. Just say MasterCard Travelers Cheques. And you'll be speaking the same language.

Roam the world with ease with MasterCard Travelers Cheques.

MasterCard Travelers Cheques from First Hawaiian Bank.



First Hawaiian Bank

The Answer is Yes.

Member FDIC

JUNE 1992
VOL. 51, No. 6
ISSN: 0017-8594

Journals
W1
HA
968

Hawaii Medical Journal

Hawaii Medical Journal
UCSF LIBRARY
Received on: 06-22-92

CONTENTS

DICAID RECIPIENTS AND PSYCHIATRIC TREATMENT 152
Wallace K C Chun MD

HMA COUNCIL HIGHLIGHTS 164

NEW AND NOTES 167

MAKA O KE KAUKA 170

LECTURE REPORT 173

U OF CALIFORNIA-SF
LIBRARY
SERIALS DEPT, BOX 0840
530 PARNASSUS AVE
SAN FRAN, CA 94143-0840

HAWAII MEDICAL ASSOCIATION 1856

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively

Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

HAWAII MEDICAL JOURNAL

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor: J I FREDERICK REPPUN MD
Founding Editor: HARRY L ARNOLD JR MD
News Editor: HENRY N YOKOYAMA MD
Contributing Editors: STEPHEN RPK BRADY MD, FRANCIS H FUKUNAGA MD,
Editorial Assistant: SUSANNE WEEKS
Publisher: STEPHEN S LENT

Editorial Board
NORMAN GOLDSTEIN MD
ROBERT TS JIM MD
JAMES LUMENG MD
FRANCIS D PIEN MD

Publications Committee: MYRON E SHIRASU MD (Commissioner)
HENRY N YOKOYAMA MD (Chair)
ERLAINE BELLO MD, STEPHEN RPK BRADY MD, NADINE BRUCE MD, NATHANIEL PH CHING MD, OSAMU FUKUYAMA MD, ROBERT C GALAGAN MD, FRED GILBERT JR MD, ROBERT HOLLISON MD, AMOD JAIN MD, ROBERT TS JIM MD, JOHN HC KIM MD, H LORRIN LAU MD, JAMES LUMENG MD, BAL RAJ MEHTA MD, FRANCIS PIEN MD, J I FREDERICK REPPUN MD, MYRON E SHIRASU MD, KIM THORBURN MD, RONALD J WONG MD, TERRY CY WONG MD, GUY N YATSUSHIRO, STEPHEN J WALLACH MD

OFFICERS
President: STEPHEN J WALLACH MD
President-Elect: JEANETTE HJ CHANG MD
Past President: JOHN T MCDONNELL MD
Secretary: ANDREW DON MD
Treasurer: JOHN S SPANGLER MD

County Presidents
Hawaii: RICHARD KM LEE-CHING MD
Honolulu: PAUL A DeMARE MD
Kauai: LARRY MAGNUSSEN MD
Maui: LEONARD H SAKAI MD
West Hawaii: MINOLU R CHENG MD

Delegates to AMA
CALVIN CM KAM MD
RUSSELL T STODD MD
Alternate Delegates to AMA
STEPHEN J WALLACH MD
JOHN T MCDONNELL MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237-640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Non-member subscriptions are $18. POSTMASTER. Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Printed in U.S.A.

Rx Considerations:

- ❑ Personality and domestic conditions are significant obstacles to recovery.
- ❑ Patient has poor posture and movement skills.
- ❑ Secondary gain from pain (money, sympathy) is more important than healthy choices.



BACKWORKS HAWAII Inc

Active, Progressive Physical/Occupational Therapy

Gentle, but firm support for your patients since 1988

945 Kamehameha Hwy • Pearl City, Hawaii 96782

456-7077

WE KNOW THE ISLANDS... AND WE KNOW ISLANDERS...

You've come to expect our kid-glove service—and we're proud of servicing Hawaii for over twenty-two years.

- Professionally Planned Office Moves
- Inter-island Household Moves
- Mainland and International
- Storage—Personal and Business

Large or small, we're your best friends when it comes to moving and storage.

M. dyer & sons, inc.
MOVING STORAGE
We're Right Here. Your Kamaaina Movers.
456-4200
For moves from the continental U.S. to Hawaii call Dyer International, Inc. 1 800 932-9955



Medford and Masu Dyer

PUC 137C ICC MC133909

Medicaid Recipients and psychiatric treatment

Wallace K C Chun MD

This is a followup of the article of the same title published in June 1989 (HMJ 48:6 221-234). As in the previous article, there were 7,000 Medicaid outpatients in psychotherapy and 2,500 psychiatric inpatients. The patients were on the islands of Oahu, Hawaii, Maui and Kauai, and the period is from September 1989 to January 1991.

Patients and methods

As in the previous report, all of the outpatients were Medicaid recipients. The inpatients were admitted to the same hospitals, and 239, or 9% were known to be Medicaid recipients in the General Assistance (G) or Medical Only (M) categories. This is a 6% decrease from the previous report.

There were no changes in the methods used in collecting and analyzing the data.

Results

Outpatients

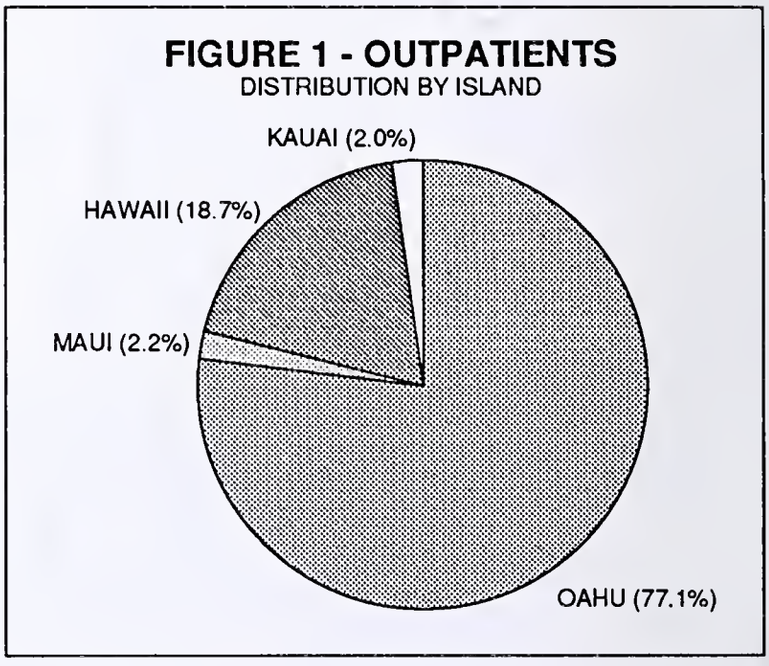
There was a slight change in the number of patients on Oahu and on Hawaii, with an increase of 2% for Oahu and a corresponding decrease for Hawaii (see Figure 1 of this and the previous).

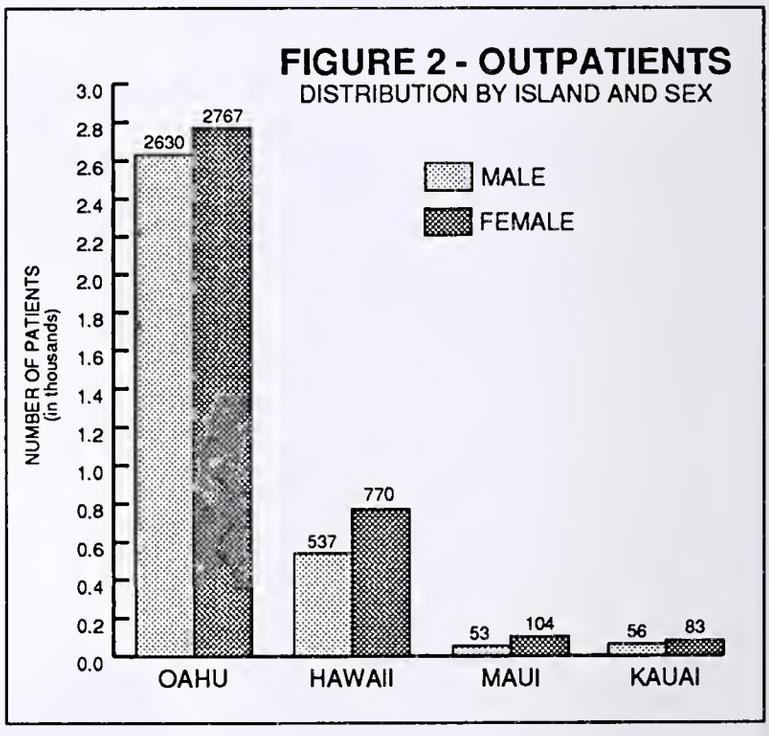
The distribution of patients by island and by sex is graphically represented in Figure 2. A significant difference between the 2 reports is that more women were seen on Oahu in the current report whereas the opposite was the case in the previous report.

The distribution of patients by age groups is also graphically presented in Figure 3. A comparison of Figure 3 in both reports shows differences in 3 areas: (1) Patients under age 18; (2) between the ages of 18 and 35; and (3) over age 35. In the current report, more patients who were under 18 were seen (1162 vs 1028) fewer patients between 18 and 35 (2647 vs 3239) and more patients over 35 (3129 vs 2733). There were 1001 patients (14.3%) who appeared in both reports, but this does not explain why more patients under 18 and over 35 were seen. It is clear that the patients seen in the current report were older than those seen in the previous report, discounting the 3-year interval.

The distribution of patients by category in the previous report is modified in this report. This is due to the use of the Hawaii Automated Welfare Information (HAWI) system, in which the former categories of G, C, E and M, are no longer

(Continued on page 154) ➤





Psychiatric Consultant
Health Care Administration Division
Department of Human Services

Received for publication January 13, 1992



WHAT RUNS AS SMOOTHLY AS A CLASSIC CAR?

Private Financial Services.

At this stage in life, your financial affairs should run as smoothly as a classic car. So to keep them finely tuned, call Private Financial Services at Bank of Hawaii.

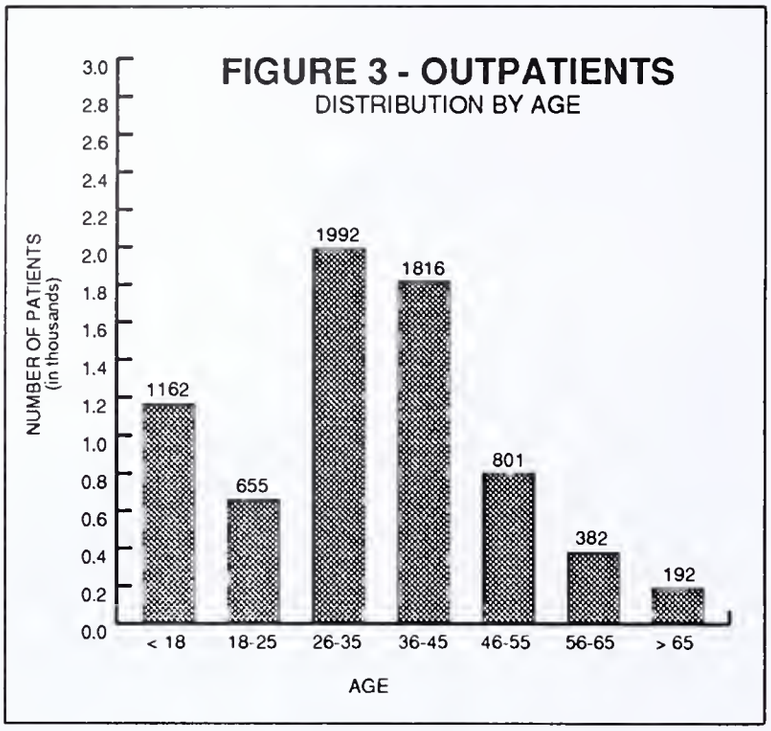
This highly specialized group offers the ultimate in private banking. An officer assigned to you coordinates all your banking, trust and investment activities. At no extra cost to you. The goal always: maximizing your assets, while minimizing your risks.

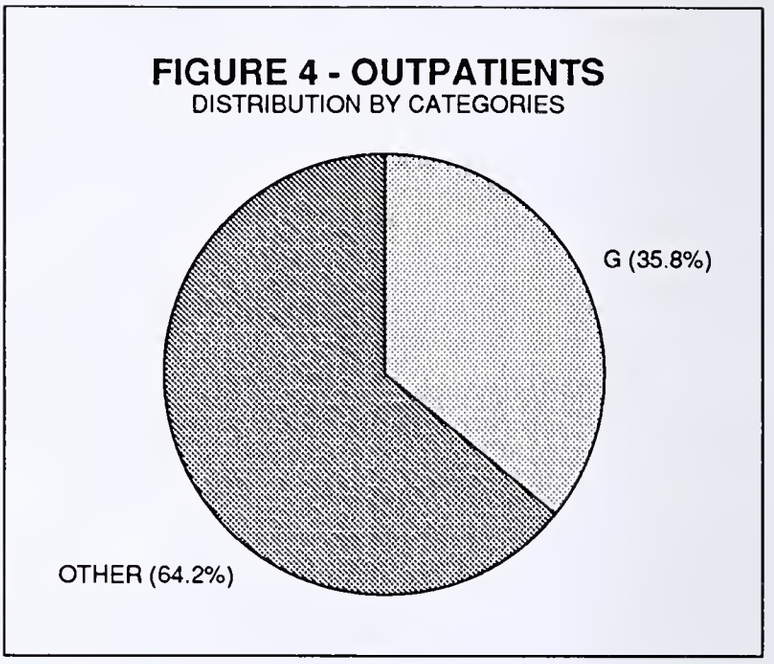
If your annual income has reached $100,000 and your net worth is $300,000 or more, excluding your primary residence, you require banking that is solid and dependable for the long run. Call 537-8663.

Bank of Hawaii
HAWAII'S BANK

MEMBER FDIC

1964 1/2 Mustang Collectible





used. In the present report only the G category could be identified from the identification numbers, and there was a 7% decrease in the number of G or General Assistance patients seen (see Figure 4 in both reports).

Table 1 shows the distribution of patients by island, sex and categories. Statewide, women again outnumbered men (3724 to 3276), but by a larger margin (by 448 in the current report vs 30 in the previous report. More women and fewer men were seen on Oahu than previously; fewer patients were seen on Hawaii (1307 vs 1452), and the numbers on Maui and Kauai were essentially unchanged (see Table 1 of both reports for details).

Table 2 shows the distribution of patients by island, age and sex.

TABLE 1 - OUTPATIENTS

DISTRIBUTION BY ISLAND, SEX & CATEGORIES

	OAHU			HAWAII			MAUI			KAUAI			TOTALS		
CATS	MALE	FEMALE	STOT	MALE	FEMALE	STOT	MALE	FEMALE	STOT	MALE	FEMALE	STOT	TOTM	TOTF	GTOT
G	1228	704	1932	284	198	482	22	19	41	26	23	49	1560	944	2504
OTHER	1402	2063	3465	253	572	825	31	85	116	30	60	90	1716	2780	4496
	2630	2767	5397	537	770	1307	53	104	157	56	83	139	3276	3724	7000

CATS - *CATEGORIES*; STOT - *SUBTOTAL*; TOTM - *TOTAL MALE*; TOTF - *TOTAL FEMALE*; GTOT - *GRAND TOTAL*.
G - *GENERAL ASSISTANCE*.

TABLE 2 - OUTPATIENTS

DISTRIBUTION BY AGE, ISLAND & SEX

	OAHU			HAWAII			MAUI			KAUAI					
AGE	MALE	FEMALE	STOT	MALE	FEMALE	STOT	MALE	FEMALE	STOT	MALE	FEMALE	STOT	TOTM	TOTF	GTOT
<18	429	408	837	114	150	264	17	20	37	10	14	24	570	592	1162
18-25	240	276	516	34	79	113	6	6	12	5	9	14	285	370	655
26-35	820	735	1555	148	205	353	9	38	47	13	24	37	990	1002	1992
36-45	705	661	1366	167	197	364	14	29	43	15	28	43	901	915	1816
46-55	271	350	621	58	96	154	6	6	12	7	7	14	342	459	801
56-65	107	220	327	12	32	44	1	3	4	6	1	7	126	256	382
>65	58	117	175	4	11	15	0	2	2	0	0	0	62	130	192
TOTALS	2630	2767	5397	537	770	1307	53	104	157	56	83	139	3276	3724	7000

STOT - *SUBTOTAL*; TOTM - *TOTAL MALE*; TOTF - *TOTAL FEMALE*; GTOT - *GRAND TOTAL*.

Table 3 shows the distribution of patients by diagnosis, sex and island. The number of patients with the diagnoses of depressive disorders, bipolar disorder and 'other' was essentially unchanged, whereas those with the diagnoses of schizophrenia, adjustment disorder, personality disorder, substance abuse and anxiety disorder increased in number. The number of patients with the diagnosis of alcoholism decreased markedly (from 917 to 321), substance abuse increased (from 415 to 621), but the combined group of alcohol and substance abuse decreased (from 1332 to 942). The increase in substance abuse is speculated to be due to an increase in the use of cocaine and methamphetamine (ice), but the reason for the decrease in the number of alcoholics is not apparent.

The distribution of patients according to their providers of care is presented in Figure 5. Psychiatrists saw fewer patients in the current report (46% vs 60% in the previous report); psychologists saw more (45% vs 34%) and clinics also saw more (8.8% vs 5.7%).

Table 4 shows the distribution of patients by island providers and sex. All providers, except psychiatrists on Hawaii, treated more women than men.

This is also graphically presented in Figures 5A through 5D.

Table 5 shows the distribution of patients by diagnosis and providers. Notable differences between the 2 reports are found in 3 diagnostic categories: Schizophrenia, alcohol, and substance abuse. The State Mental Health Clinics saw more than double the number of schizophrenics (240 as compared to 115). The number of alcoholics seen by psychiatrists dropped from 720 to 118 (79% to 37%), while those seen by psychologists increased from 182 to 197 (20% to 61%). The number of substance abusers seen by psychiatrists dropped from 312 to 204 (75% to 33%), and those seen by psychologists increased from 86 to 409 (21% to 66%).

TABLE 3 - OUTPATIENTS

DISTRIBUTION BY DIAGNOSIS, ISLAND & SEX

DX	OA M	OA F	STOT	HA M	HA F	STOT	MA M	MA F	STOT	KA M	KA F	STOT	TOTM	TOTF	GTOT
ALC	213	62	275	13	6	19	5	1	6	15	6	21	246	75	321
DYS	177	285	462	53	111	164	4	11	15	12	24	36	246	431	677
SCH	522	491	1013	60	54	114	4	5	9	6	5	11	592	555	1147
ADJ	350	564	914	92	177	269	9	22	31	5	13	18	456	776	1232
PER	186	230	416	87	57	144	1	17	18	2	2	4	276	306	582
DEP	218	456	674	66	120	186	6	15	21	5	15	20	295	606	901
SUB	412	157	569	24	14	38	3	4	7	1	6	7	440	181	621
BIP	96	107	203	10	14	24	2	3	5	1	2	3	109	126	235
ANX	84	116	200	30	84	114	7	9	16	1	2	3	122	211	333
OTHER	372	299	671	102	133	235	12	17	29	8	8	16	494	457	951
	2630	2767	5397	537	770	1307	53	104	157	56	83	139	3276	3724	7000

DX - *DIAGNOSIS*; OA - *OAHU*; M - *MALE*; F - *FEMALE*; STOT - *SUBTOTAL*; HA - *HAWAII*; MA - *MAUI*; KA - *KAUAI*; TOTM - *TOTAL MALE*; TOTF - *TOTAL FEMALE*; GTOT - *GRAND TOTAL*; ALC - *ALCOHOL*; DYS - *DYSTHYMIA*; SCH - *SCHIZOPHRENIA*; ADJ - *ADJUSTMENT DISORDER*; PER - *PERSONALITY DISORDER*; DEP - *DEPRESSION*; SUB - *SUBSTANCE ABUSE*; BIP - *BIPOLAR*; ANX - *ANXIETY*.

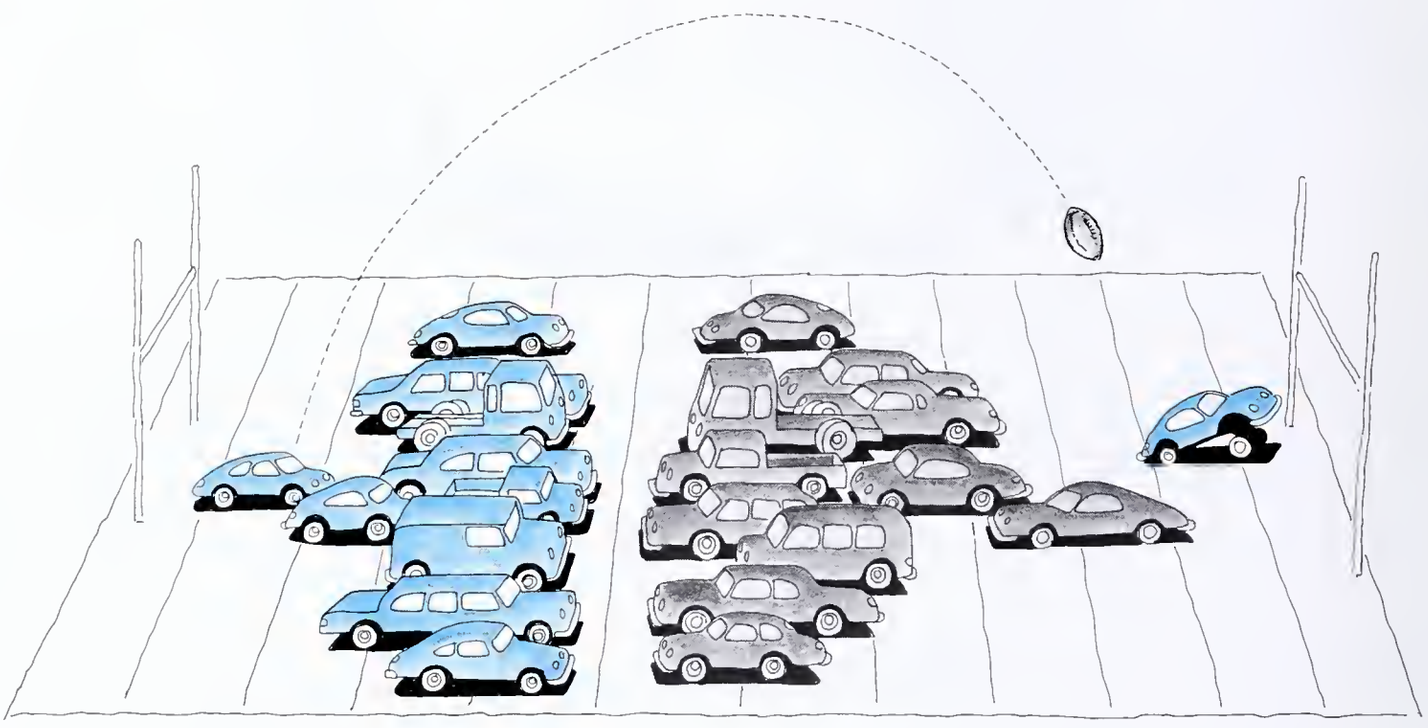
TABLE 4 - OUTPATIENTS

DISTRIBUTION BY PROVIDERS, ISLAND & SEX

	OAHU			HAWAII			MAUI			KAUAI			TOTALS		
	MALE	FEMALE	STOT	MALE	FEMALE	STOT	MALE	FEMALE	STOT	MALE	FEMALE	STOT	TOTM	TOTF	GTOT
MD	1174	1248	2422	346	304	650	18	35	53	45	57	102	1583	1644	3227
PhD	1169	1194	2363	191	466	657	34	64	98	11	26	37	1405	1750	3155
CLIN	287	325	612				1	5	6				288	330	618
	2630	2767	5397	537	770	1307	53	104	157	56	83	139	3276	3724	7000

MD - *PSYCHIATRISTS*; PhD - *PSYCHOLOGISTS*; CLIN - *CLINICS*
STOT - *SUBTOTAL*; TOTM - *TOTAL MALE*; TOTF - *TOTAL FEMALE*; GTOT - *GRAND TOTAL*.

(Continued on page 157) ➤



Leasing cars for business is a whole new ball game.

First Hawaiian Leasing announces FirstLease — a product designed expressly for business and professional people who drive their vehicles 50% or more for business use.

Advantages of FirstLease include:

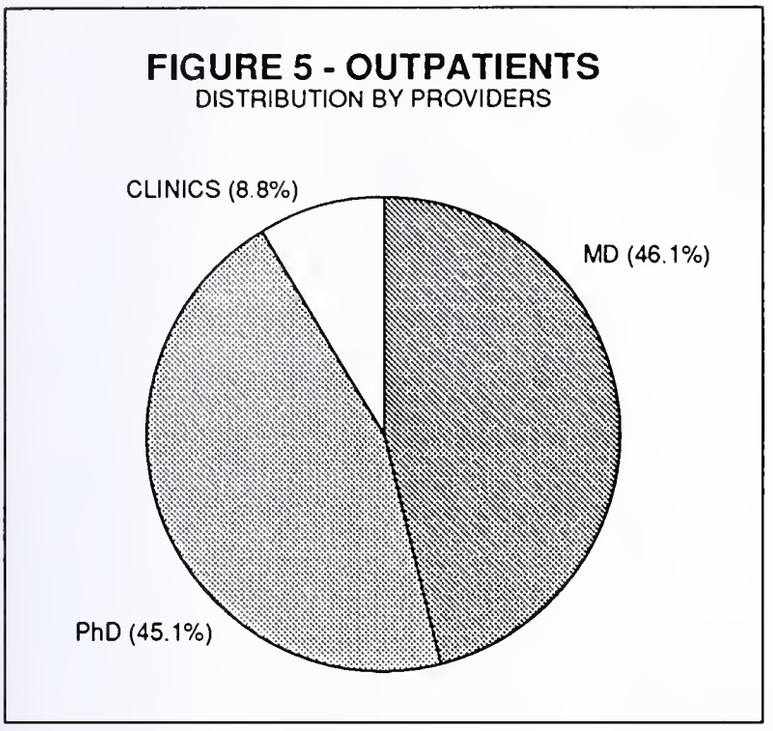
- Monthly payments are typically 25% to 35% lower than conventional financing and remain the same throughout your lease.
- You select the vehicle and dealer of your choice.
- You can benefit from certain tax savings.
- There's no down payment. In effect, FirstLease gives you 100% financing.

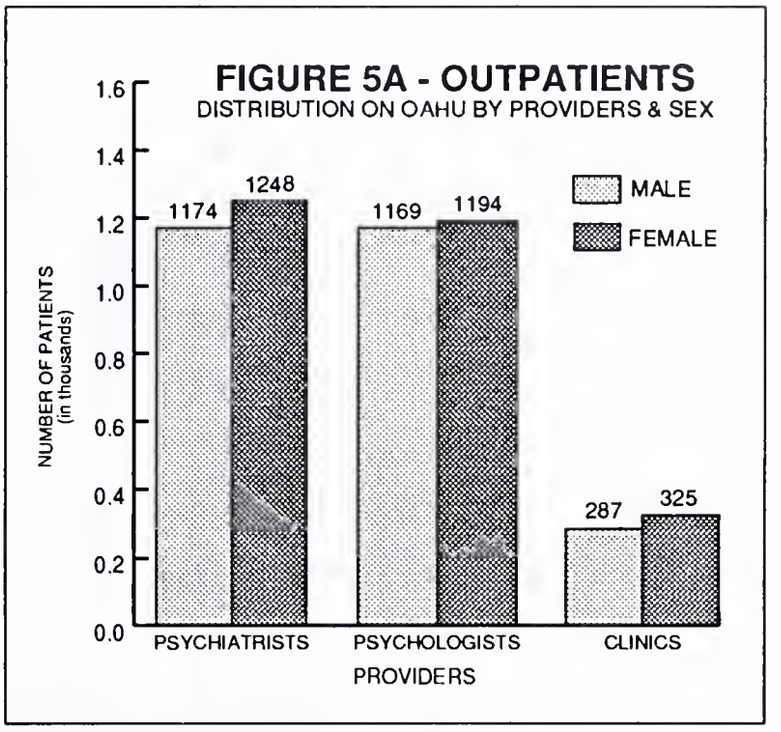
FirstLease is a convenient and economical way of financing your new car, truck or fleet. To get the ball rolling, call the FirstLease Team at 525-7035.

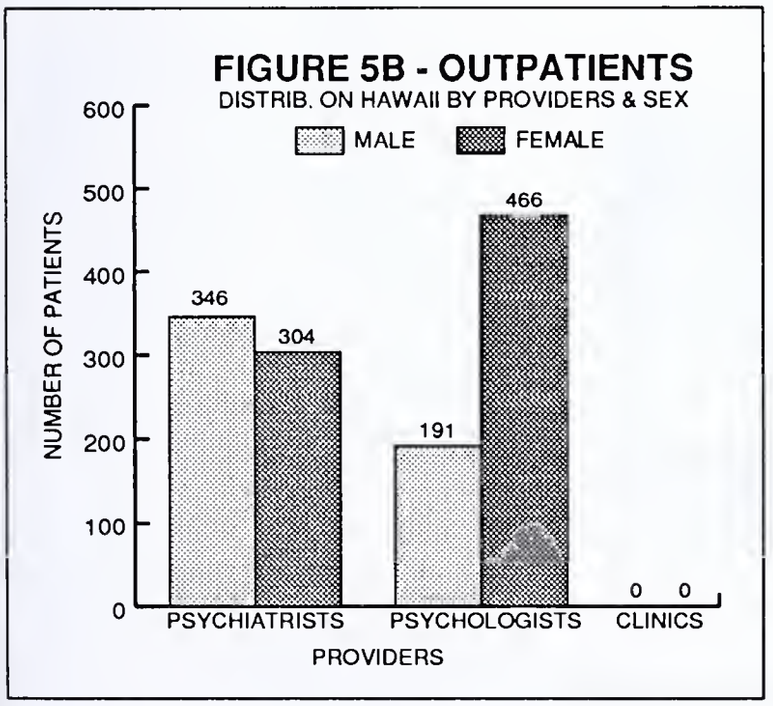
The FirstLease

FIRST HAWAIIAN LEASING, INC.

A financial services company of First Hawaiian, Inc.







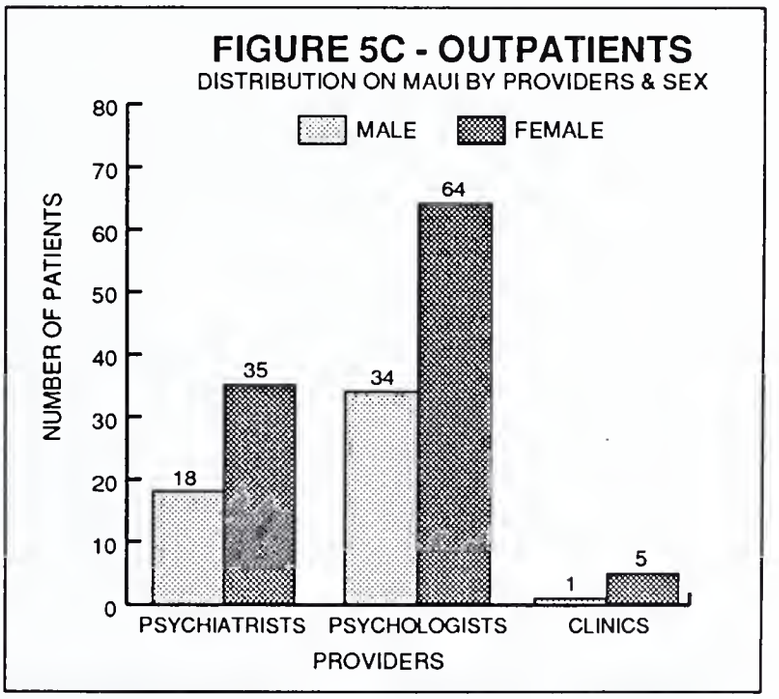


Table 6 shows distribution by age and diagnosis. There are no significant differences between the 2 reports except for those previously discussed.

Table 7 shows some specifics about patients with the diagnosis of schizophrenia, with no significant difference between the 2 reports. Again 384 patients or 60% of the 619 patients seen before 1985 were between the ages of 26 and 45.

Inpatients

The distribution of inpatients by island is presented in Figure 6. Admissions to hospitals on Oahu increased by nearly 7% while all other islands showed decreases. The distribution of patients on Oahu by hospital is shown in Figure 7 and by hospital and sex in Figure 7A. Admissions to Castle Medical Center increased by 5% and more women were

(Continued) ➤

PENSION HEADACHES?



GET THE CURE...

Are pension details giving you a headache? Call HICKS and get the cure. As third Party administrators of qualified retirement plans, HICKS offers complete support to accountants with consulting, documentation and administration for their clients.

Clients of HICKS enjoy complete discretion of trust assets while never having to worry about compliance issues or administration duties. With HICKS, all required Trust Accounting, Participant Allocations, Government Reporting (including IRS form 5500) and Plan Amendments are handled. And, with over 21 years of experience behind us, accountants enjoy the comfort of knowing their clients' plans are being handled by the best in the business!

So, if pension headaches are getting you down, call HICKS and get the cure!

*Self Trustee Plans
*Standardized Documents
*Plan Design and Amendment
*Actuarial Services
*In-House Continuing Education
*Training for Accountants
*Profit Sharing
*401(k) Profit Sharing
*Money Purchase Pension
*Target Benefit Pension
*Defined Benefit Pension
*125/Cafeteria Plans

HICKS. PENSION SERVICES

CPE

615 Piikoi Street • Suite 2020 • Honolulu HI 96814 • (808) 523-0144

BIOHAZARD

PERSONAL PRECAUTIONARY APPAREL

YOUNG LAUNDRY & DRY CLEANING

834-7560

"Complete Rental Service for the Healthcare Professional"

admitted in the current report (see Figure 7A of both reports).

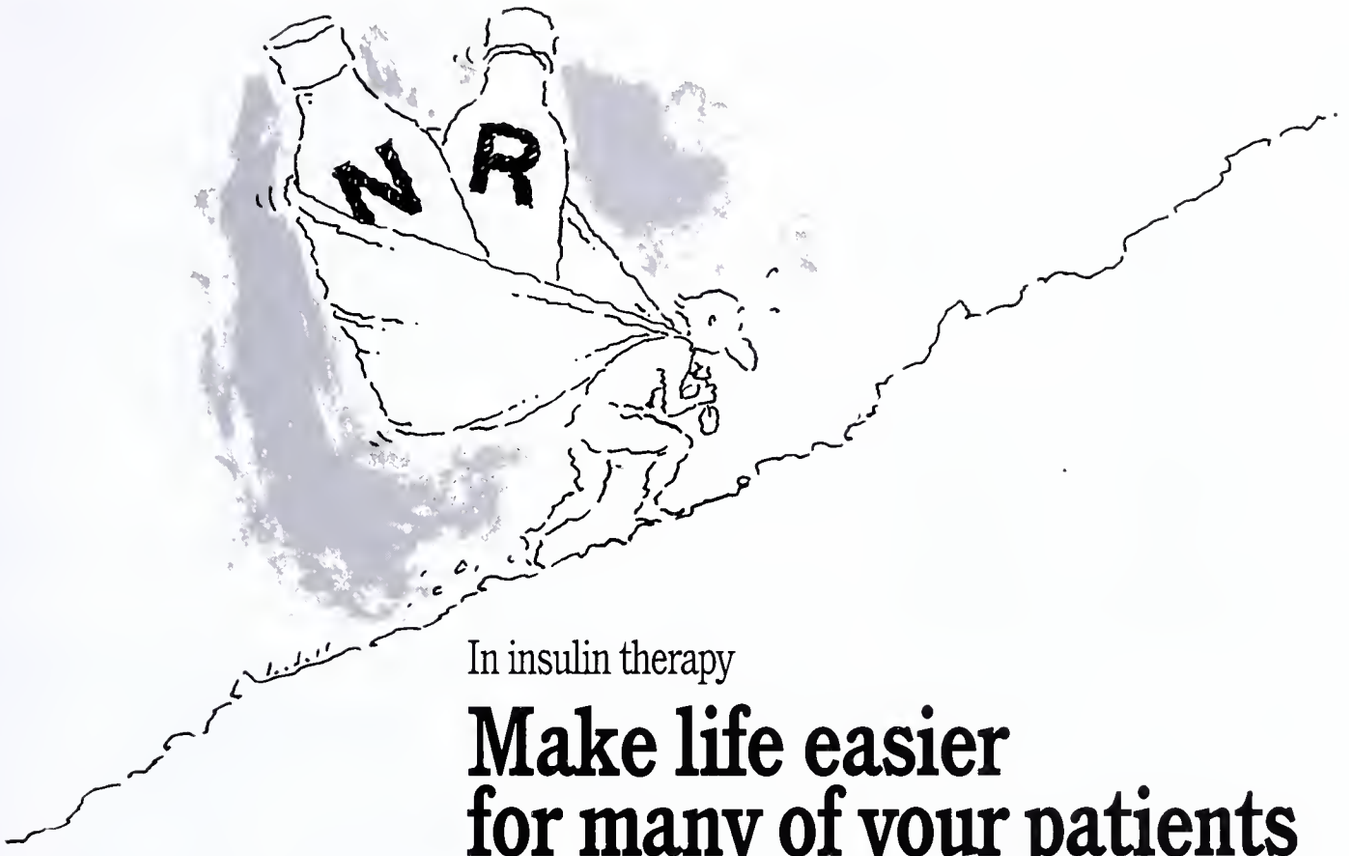
A comparison of the percentage of outpatients versus inpatients for each island is graphically shown in Figure 8. On Oahu, the men-to-women ratio was reversed in the present report, but there were no significant changes on the other islands. Figure 8A demonstrates the following: The percentages on each island of (a) the State's population, (b) its Medicaid recipients, (c) those in outpatient psychotherapy and (d) those admitted to hospitals for psychiatric diagnosis. When comparing this report with the previous report, a significant difference is noted in the increase in the percentage of inpatients on Oahu. Hawaii continues to have a larger percentage of Medicaid recipients and outpatients than its percentage of the State's population, and the percentage of inpatients is about a third of that of the outpatients. Maui's percentage of inpatients is only 3 times that of the outpatients (6 times in the last report). Kauai's percentage of inpatients remains at more than three times that of the outpatients.

The distribution of inpatients by island and sex is graphically shown in Figure 9, with no significant difference between the two reports. The distribution by diagnoses is shown in Figure 10. What appears to be a large drop in the diagnosis of dysthymia is an artifact, depending on how the diagnosis was coded, whereas the combined totals for dysthymia and depression in both reports (27.4% vs 30%) are fairly close. The only other difference is the almost threefold increase of admissions for substance abuse in the current report (from 2.7% as compared to 7.5%).

Tables 8 and 9 show the distribution by age, diagnosis, island and sex in greater detail. Both reports show large numbers of admissions (1793 or 72% in the current report, 1894 or 74% in the previous report) for those between the ages of 18 and 45. Both reports also show a small number of admissions for those under 18 or over 65 (279 or 11% in the current report, 235 or 9% in the previous report).

Figure 11 again shows that a large majority of patients (1874 or nearly 75%) were admitted only once. This is slightly less than in the previous report (1927 or 77%). In the current report, 5 patients had 9 admissions and 2 patients had 10 admissions, whereas 8

(Continued on page 160)➤



In insulin therapy

Make life easier for many of your patients

Humulin 70/30. Convenient and simple to administer. No more mixing. No more mixing errors. All of which makes living with diabetes a little easier for patients. And compliance a lot easier to achieve.



Humulin® 70/30

70% human insulin isophane suspension
30% human insulin injection
(recombinant DNA origin)

The patient-friendly premix

Lilly

Global Excellence in Diabetes Care

Eli Lilly and Company
Indianapolis, Indiana
46285

WARNING: Any change of insulin should be made cautiously and only under medical supervision.

HI-7905-B-249327 ©1992, ELI LILLY AND COMPANY

FIGURE 5D - OUTPATIENTS

DISTRIB. ON KAUAI BY PROVIDERS & SEX

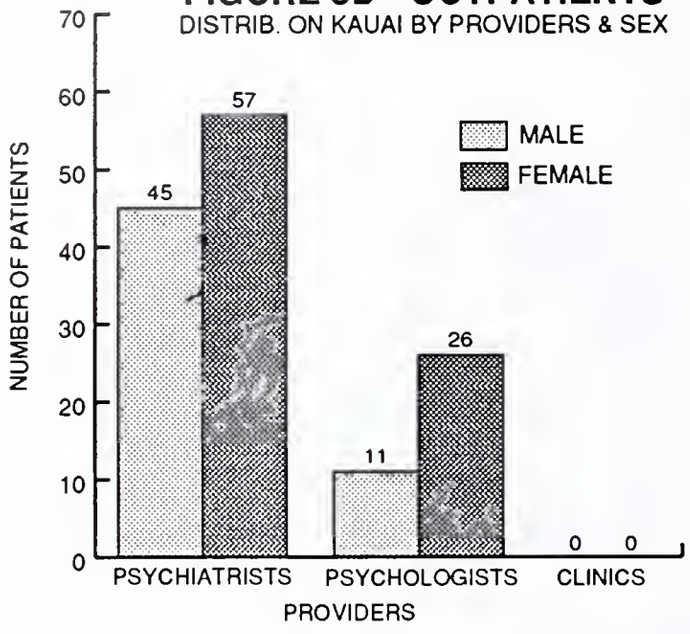


TABLE 6 - OUTPATIENTS

DISTRIBUTION BY AGE & DIAGNOSIS

AGE	ADJ	DYS	SCH	ALC	PER	SUB	DEP
<18	575	47	10	0	23	5	42
18-25	126	48	113	18	72	80	71
26-35	230	200	382	113	214	279	245
36-45	181	224	299	119	199	183	283
46-55	58	105	175	50	56	58	144
56-65	31	39	100	21	15	16	83
>65	31	14	68	0	3	0	33
TOTALS	1232	677	1147	321	582	621	901

DX - *DIAGNOSIS*; DEP - *DEPRESSION*; SCH - *SCHIZOPHRENIA*;
ALC - *ALCOHOL*; SUB - *SUBSTANCE ABUSE*;
DYS - *DYSTHYMIA*; PER - *PERSONALITY DISORDER*;
ADJ - *ADJUSTMENT DISORDER*.

TABLE 5 - OUTPATIENTS

DISTRIBUTION BY DIAGNOSIS, PROVIDERS

	MD		PhD		OTHER CLINICS		STA CLIN
DX	#	%	#	%	#	%	#
BIP	166	71	37	16	5	2	27
DEP	515	57	352	39	23	3	11
SCH	756	66	102	9	49	4	240
ALC	118	37	197	61	3	1	3
SUB	204	33	409	66	3	<1	5
DYS	390	58	266	39	17	3	4
PER	223	38	339	58	12	2	8
ANX	190	24	128	66	15	5	0
ADJ	291	24	832	66	104	9	5
OTHER	374	39	493	52	68	7	16
TOTAL	3227		3155		299		319

DX - *DIAGNOSIS*; BIP - *BIPOLAR*; DEP - *DEPRESSION*;
SCH - *SCHIZOPHRENIA*; ALC - *ALCOHOL*; SUB - *SUBSTANCE ABUSE*;
DYS - *DYSTHYMIA*; PER - *PERSONALITY DISORDER*; ANX - *ANXIETY*;
ADJ - *ADJUSTMENT DISORDER*.

TABLE 7 - SCHIZOPHRENIA

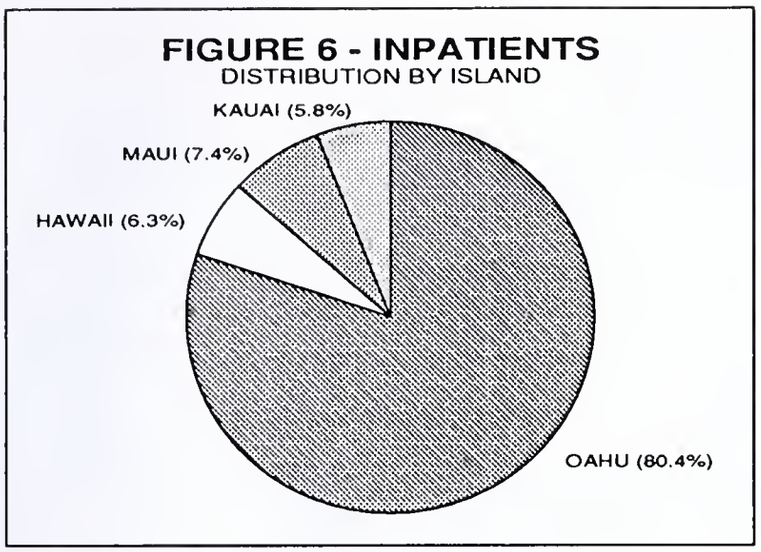
YF	#	YF<85 AGE	#
90	196	<18	1
89	118	18-25	24
88	81	26-35	196
87	57	36-45	188
86	39	46-55	106
85	53	56-65	57
<85	619	<65	47
	1163		619

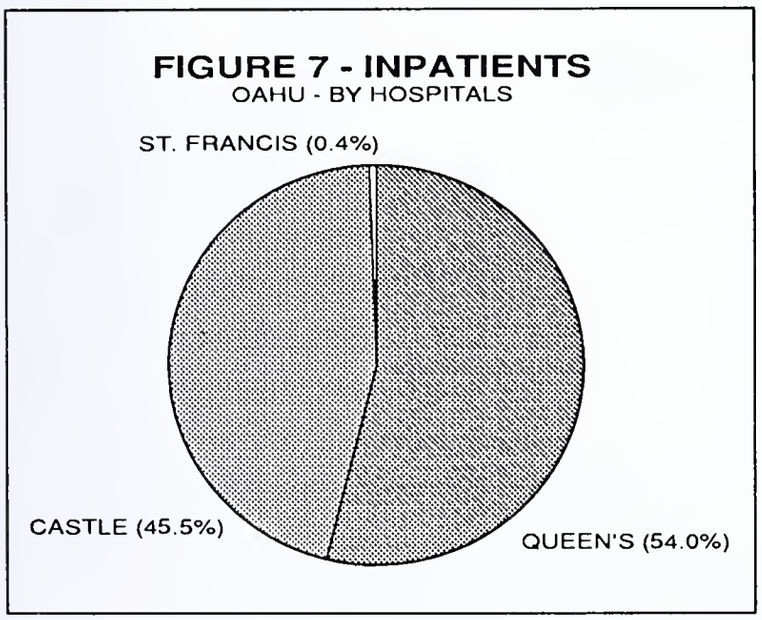
YF = *YEAR FIRST SEEN*

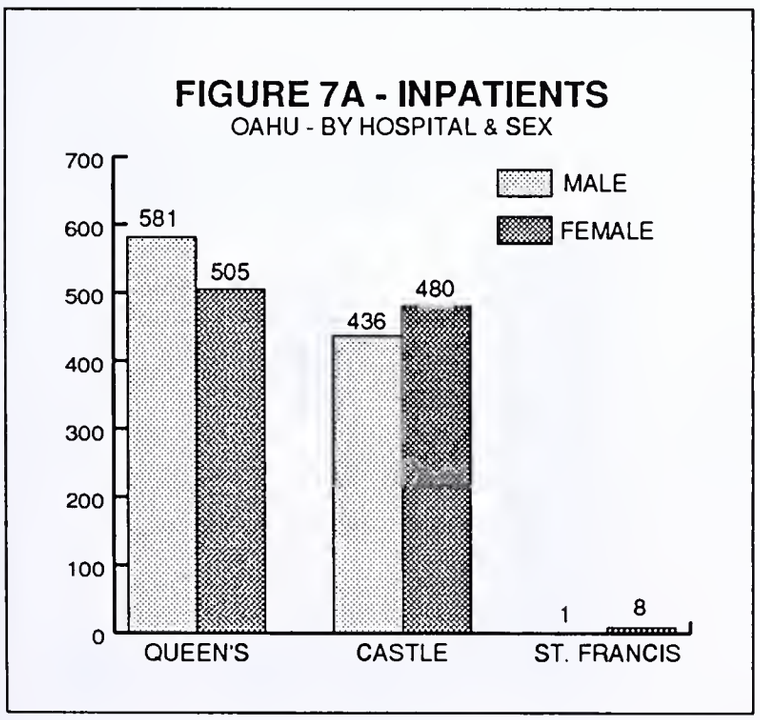
admissions (involving just 2 patients) was the most in the previous report. There were 376 patients who are represented in both reports.

Figure 12 shows admissions by month; the admissions were relatively evenly distributed throughout the year, with one exception: The month of June 1990. It is not known why the admissions during that month were so much less than in most of the other months.

(Continued) ➤







(Continued on page 162) ➤

▪ Speed up claims submissions
▪ Prevent Rejections
▪ Increase your cash flow
▪ Reduce overhead costs

Kris-Care Medical Billing specializes in electronic claims billing. This will ensure that your practice receives payments quickly. Our highly accurate, rapid claims filing will boost your reimbursement levels. Licensed, trained professionals will work directly with you.

We can save time and money. Call us today.

▪

Kris-Care Medical Billing
(808) 254-0429

MIEC

and the
HAWAII MEDICAL ASSOCIATION
present

A Practice Management Seminar

HONOLULU
Tuesday, July 14 and Wednesday, July 15
12:00 pm – 2:30 pm
Hyatt Regency Waikiki
2424 Kalakaua Ave., Honolulu, HI

LEEWARD
Thursday, July 16
12:00 pm – 2:30 pm
Pali Momi Medical Center
98-1079 Moanalua Road, Aiea, HI 96701

KAUAI
Friday, July 17
12:00 pm – 2:30 pm
G. N. Wilcox Hospital
3420 Kuhio Hwy., Lihue, Kauai

Register with
Medical Insurance Exchange of California
6250 Claremont Avenue,Oakland, CA 94618
Telephone Toll Free (800) 227-4527

TABLE 8 - INPATIENTS
DISTRIBUTION BY AGE, ISLAND & SEX

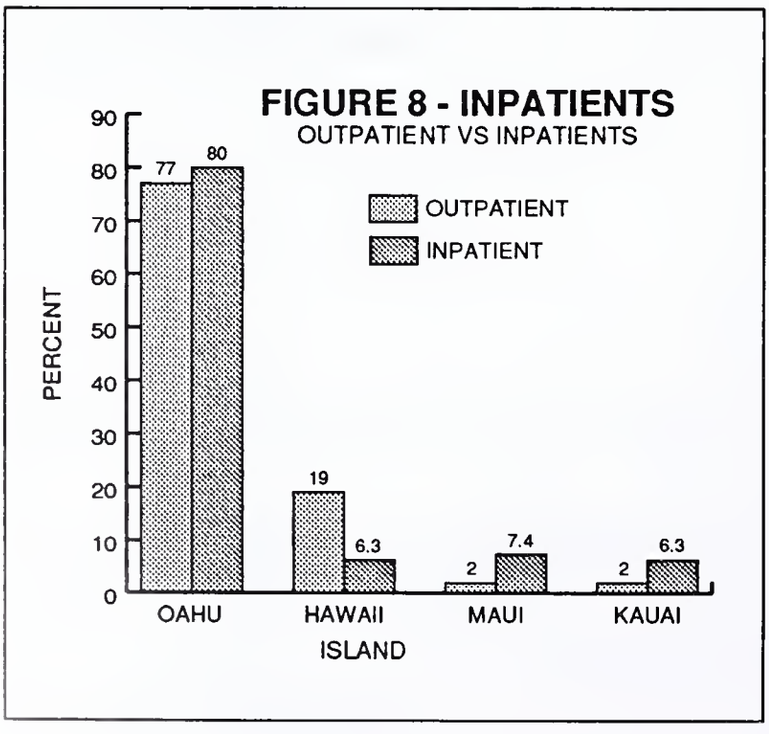
	OA M	OA F	STOT	HA M	HA F	STOT	MA M	MA F	STOT	KA M	KA F	STOT	TOTM	TOTF	GTOT
<18	46	82	128	6	2	8	4	1	5	3	4	7	59	89	148
18-25	151	134	285	10	8	18	14	10	24	8	3	11	183	155	338
26-35	365	277	642	33	20	53	30	37	67	26	11	37	454	345	799
36-45	269	241	510	29	22	51	26	27	53	16	26	42	340	316	656
46-55	104	121	225	7	9	16	10	13	23	13	9	22	134	152	286
56-65	40	66	106	4	8	12	2	5	7	10	7	17	56	86	142
>65	43	72	115	0	0	0	3	3	6	6	4	10	52	79	131
TOTALS	1018	993	2011	89	69	158	89	96	185	82	64	146	1278	1222	2500

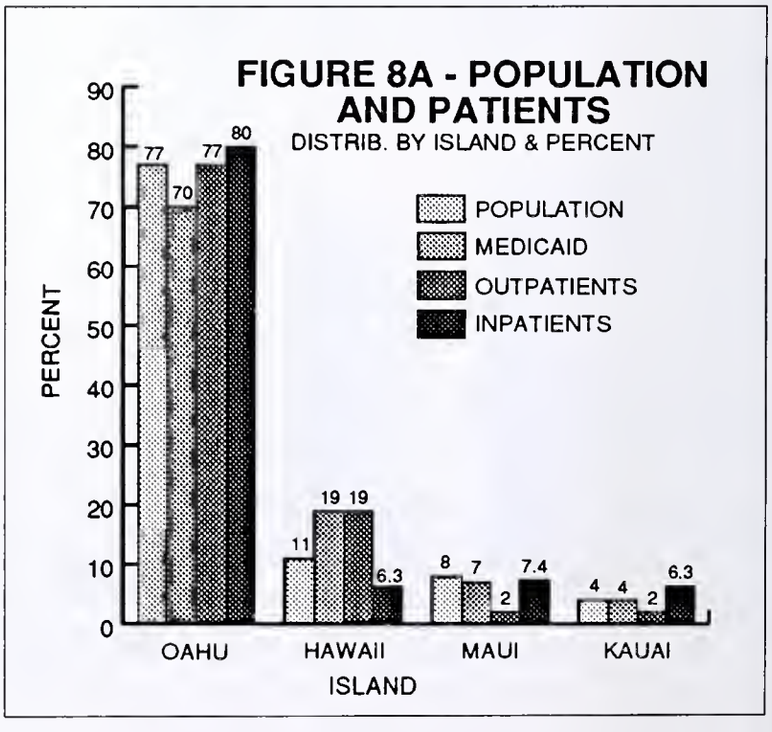
OA M- *OAHU MALE*; OA F - *OAHU FEMALE*; STOT - *SUBTOTAL*; HA M - *HAWAII MALE*; HA F - *HAWAII FEMALE*; MA M- *MAUI MALE*; MA F- *MAUI FEMALE*; KA M - *KAUAI MALE*; KA F - *KAUAI FEMALE*; TOTM - *TOTAL MALE*; TOTF - *TOTAL FEMALE*; GTOT - *GRAND TOTAL*.

TABLE 9 - INPATIENTS
DISTRIBUTION BY DIAGNOSIS, ISLAND & SEX

DX	OA M	OA F	STOT	HA M	HA F	STOT	MA M	MA F	STOT	KA M	KA F	STOT	TOTM	TOTF	GTOT
SCH	334	246	580	34	21	55	18	21	39	28	23	51	414	311	725
DEP	223	270	493	10	16	26	14	22	36	11	9	20	258	317	575
DPS	18	25	43	2	3	5	0	2	2	0	0	0	20	30	50
DYS	18	27	45	2	0	2	2	5	7	5	1	6	27	33	60
DSS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BIP	103	130	233	4	4	8	10	12	22	4	8	12	121	154	275
ALC	39	11	50	15	5	20	13	8	21	13	6	19	80	30	110
SUB	88	43	131	11	5	16	13	11	24	7	9	16	119	68	187
OBS	13	8	21	0	1	1	1	1	2	2	0	2	16	10	26
OTHER	182	233	415	11	14	25	18	14	32	12	8	20	223	269	492
	1018	993	2011	89	69	158	89	96	185	82	64	146	1278	1222	2500

SCH - *SCHIZOPHRENIA*; DYS - *DYSTHYMIA*; DSS - *DYSTHYMIA WITH SUICIDE*; DEP - *MAJOR DEPRESSION*; DPS - *DEPRESSION WITH SUICIDE*; BIP - *BIPOLAR*; ALC - *ALCOHOL*; SUB - *SUBSTANCE ABUSE*; OBS - *ORGANIC BRAIN SYNDROME*; DX - *DIAGNOSIS*; OA M- *OAHU MALE*; OA F - *OAHU FEMALE*; STOT - *SUBTOTAL*; HA M - *HAWAII MALE*; HA F - *HAWAII FEMALE*; MA M- *MAUI MALE*; MA F- *MAUI FEMALE*; KA M - *KAUAI MALE*; KA F - *KAUAI FEMALE*; TOTM - *TOTAL MALE*; TOTF - *TOTAL FEMALE*; GTOT - *GRAND TOTAL*.

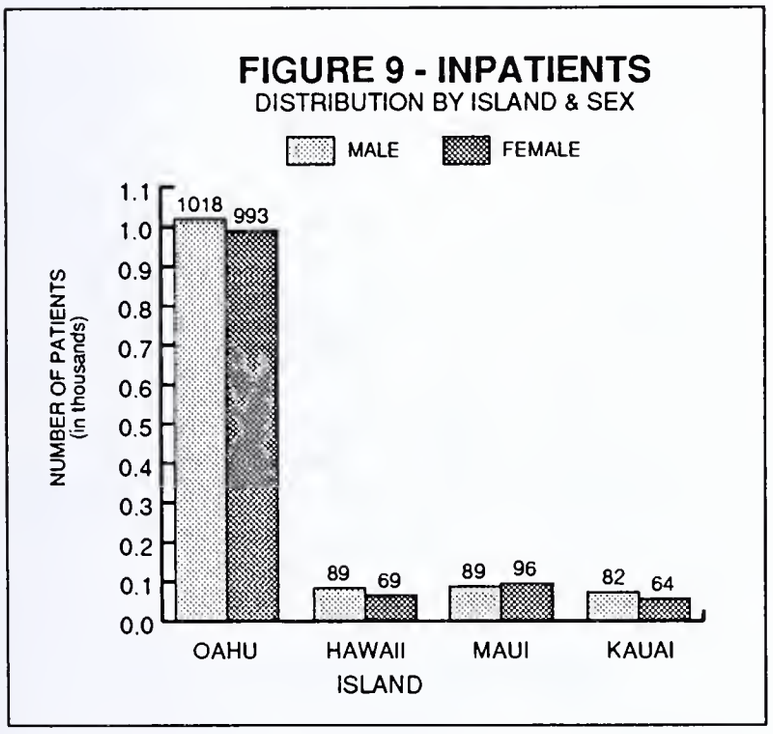


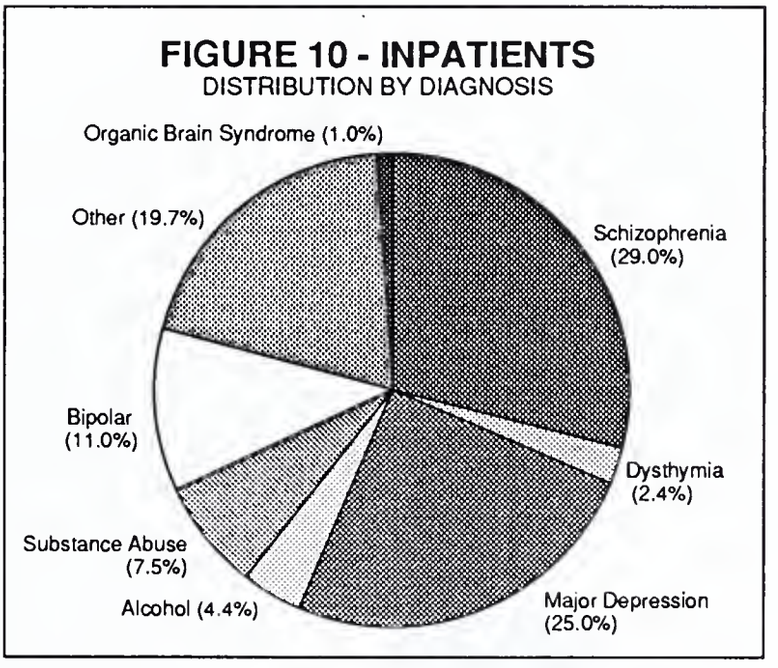


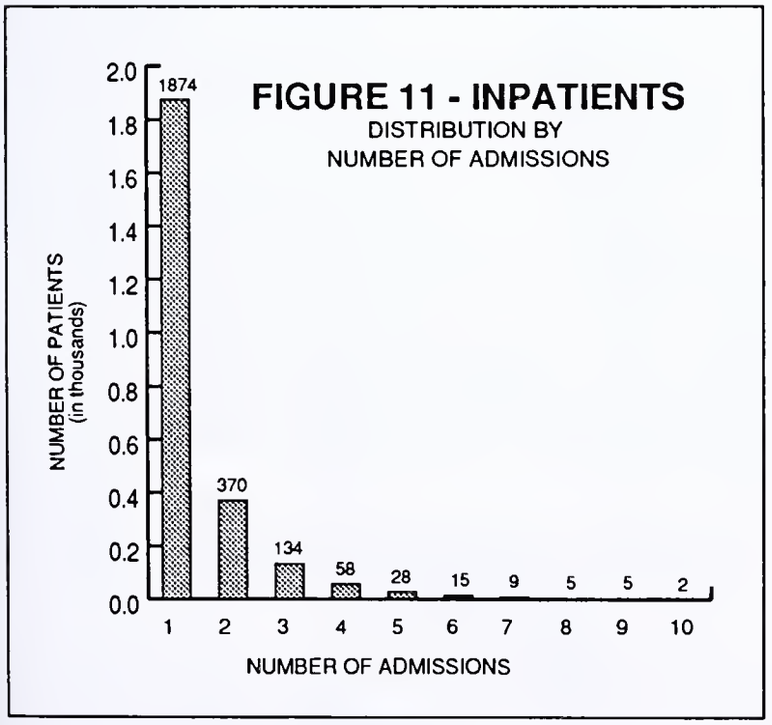
Discussion

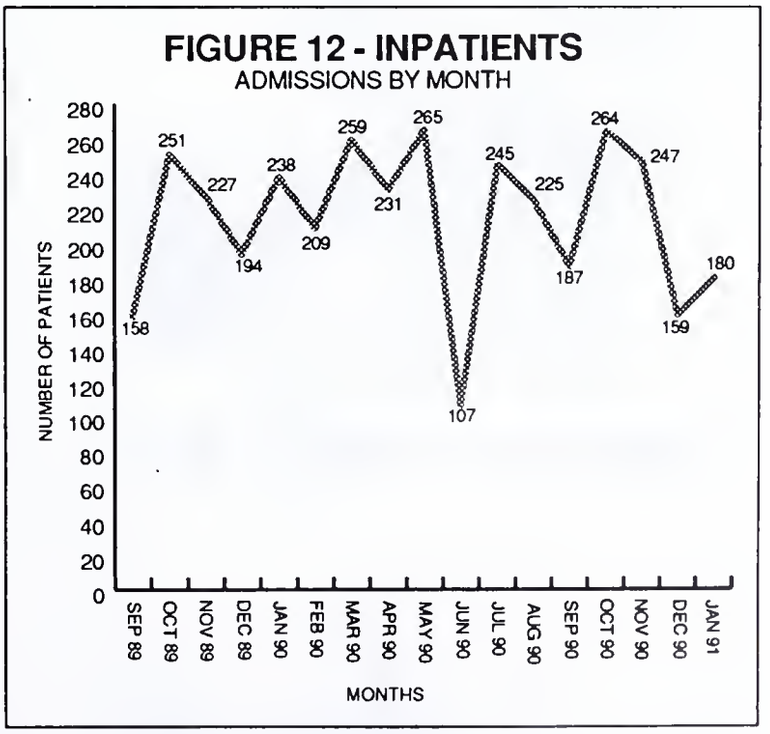
Analysis of the data in patients seen approximately 3 years later has provided the State Department of Human Services with valuable information about patients and providers in terms of changes and trends. Of the 7,000 outpatients in each report, 1001 or 14.3%, appeared in both reports. Of the 2,500 inpatients in each report, 376 or 15% appeared in both reports. This suggests that there is a small core of outpatients and inpatients who may be considered chronic. However, by and large, there is a large turnover of patients.

The small increase in both outpatients and inpatients seen on Oahu, the difference in the ages of the outpatients, the large decrease in alcoholics and the large increase in substance abusers who were seen; the increase in the number of outpatients seen by psychologists, the increase in the number of patients admitted to Castle Medical Center and the increase in the number of schizophrenics seen in the State Mental Health Clinics are the notable differences demonstrated when the 3 reports are compared. As the need arises other parameters may be examined or specific information on different items may be extracted from the data provided in the 2 reports. ■









Highlights of the HMA Council Meeting of May 8, 1992

Present at the HMA Council Meeting on 8 May 1992 were: Drs S Wallach, President, J Chang, A Don, J Spangler, J McDonnell, C Kam, R Stodd, F Holschuh, M Cheng, L Sakai, R Lee-Ching, C Lehman, P Blanchette, R Embry, R Kimura, M Shirasu, R Goodale, H Fong, T Smith, G Goto, J Lumeng, WWY Chang, A Kunimoto, N Winn and J Gaspar-medical student representative. Also present were: B Fong - Medical Director - Aetna Medicare, F Reppun - Editor *HMJ*, V Woo - Legal Counsel, N Kaneshiro - medical student, and guest Sue Slavish, Infection Control Coordinator - The Queen's Medical Center. HMA staff present were: J Won, N Jones, B Kendro, J Asato, L Tong, P Kawamoto, J Estioko, L Burgess, and M Lindsey, recording secretary.

ACTION

1. Council agreed to financially support a history of health care financing in Hawaii to be published by HMSA Foundation in cooperation with other health care leaders in the community.

2. The deadline to implement OSHA/DOSH regulations regarding management of accidental exposure to blood/body fluids is extended to June. It was moved and seconded that HMA disseminate information regarding available established guidelines from AMA, DOSH, and others to HMA members. Council also approved a seminar regarding these guidelines for HMA members, and will invite nonmembers. Nonmembers wishing to attend will be charged a substantial registration fee and encouraged to join HMA.

3. The registration fee for an HMA member to attend the First Statewide Primary Care Conference sponsored by the Hawaii State Primary Care Association was approved.

4. The purchase of 20,000 brochures about Anabolic Steroid Abuse for $900 was approved. The brochures will be printed along with 20,000 brochures paid for by the DoH and will be distributed to HMA members for their offices, UH medical faculty and students, Chapters of the American Academy of Pediatrics and medical specialty societies. The DOH brochures will be distributed in the community and through the Department of Education to children and adolescents.

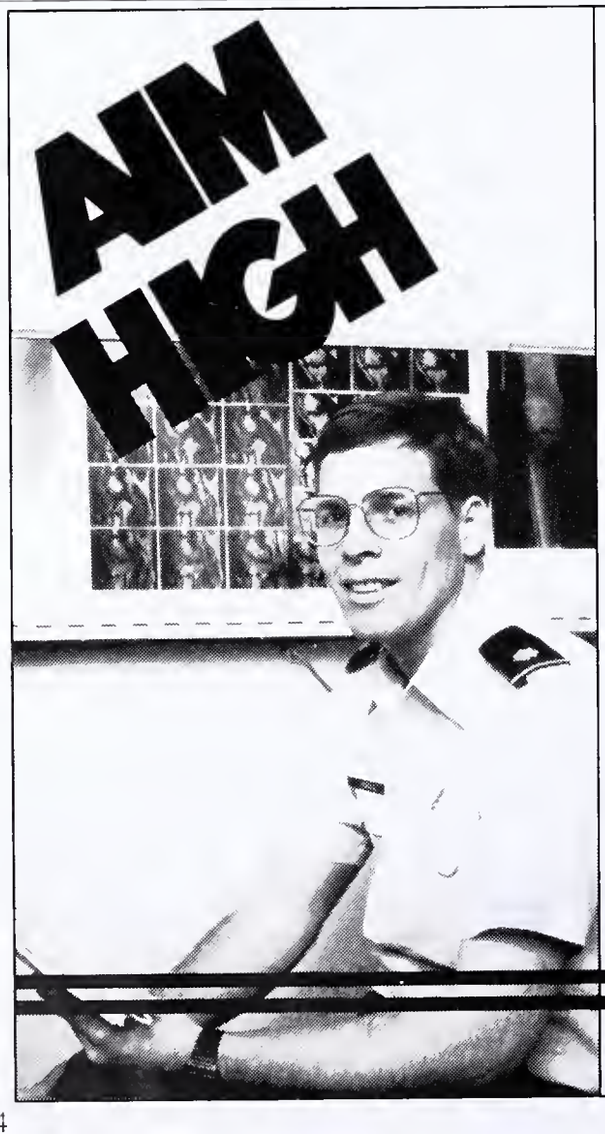
5. U.S. House Bill 3090 to reauthorize the Title X Family Planning Program and overturn the "Gag rule" regulation, which prohibits physicians to counsel or refer patients to abortion facilities, was supported by Council.

INFORMATION

1. Dr Calvin Sia will receive an Honorary Doctor of Humane Letters degree from the University of Hawaii — Congratulations, Cal!

2. MIEC Loss Prevention Seminars will be held: Hyatt Waikiki 14 and 15 July; Pali Momi Medical Center on 16 July and on Kauai, 17 July.

3. The Legislative Committee has been active this legislative session with favorable results. Thanks to all HMA members who participated in providing testimony and lobbying. Please call HMA for information on specific legislative bills.

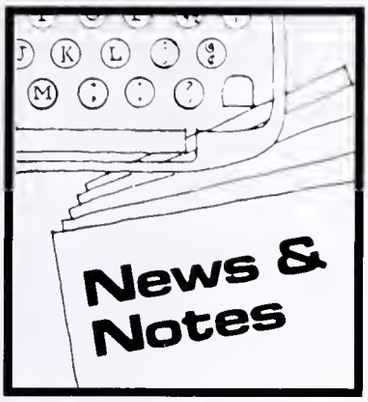


RUN A SPECIAL PRACTICE.

Today's Air Force has special opportunities for qualified physicians and physician specialists. To pursue medical excellence without the overhead of a private practice, talk to an Air Force medical program manager about the quality lifestyle, quality benefits and 30 days of vacation with pay each year that are part of a medical career with the Air Force. Discover how special an Air Force practice can be. Call

USAF HEALTH PROFESSIONS
TOLL FREE
1-800-423-USAF

AIR FORCE



Henry N. Yokoyama MD

Life in These Parts . . .

Should Nurse Practitioners Prescribe Medication?

Dr John Lewin, State Health Director, says, "It can be done in partnership with doctors — and not in conflict with them."

Stephen Wallach, HMA president says: "I need to be more convinced. I'm not sure public safety is their first consideration."

Of Boobs and Books...

"Dr Robert Flowers, best known for the "Boobs by Bob" T-shirts he gives to breast implant patients, has just accepted an invitation to co-author the first Croatian language book on plastic surgery with Dr Bosko Milojevic, Croatia's best known cosmetic surgeon, who studied with Bob some years ago."

(Don Chapman, January 13, 1992)

Now a frozen in-vitro baby...What Next?

The Pacific In-Vitro Fertilization Institute, founded in 1985, has a track record of 160 in-vitro babies born. Now it has a frozen embryo baby born on December 29. OB/GYN Phil McNamee, one of the founders, hopes his next breakthrough will be a micro-manipulation pregnancy (ie, a procedure that involves drilling tiny holes on an egg so that sperms can penetrate easier).

Professional Moves

December: New Straub physicians

OB/GYN: Philip Browning, Kaneohe Family Health Center

FP Medicine: Bruce Chung, Kailua Family Health Center

Chest Diseases: Elaine Imoto, King Street

Internal Medicine: Lois Saruwatari, Financial District Clinic

Orthopedics: James Scoggin III, King Street

Pediatrics: Paula Wyatt, Hawaii Kai Family Health Center

Orthopod Brian Stephens joined the Kauai Medical Group

January:

Cardiologists Neal Shikuma and Stanley Kawanishi announced the formation of Hawaii Cardiology Inc with offices in Honolulu and Ewa.

OB/GYN David McDonald joined the Kauai Medical Group, Inc

Bruce Chrisman retired from full-time practice and Robert Peterson took over.

William Dung, president of the Hawaii Permanente Medical Group for 20 years retired at the end of 1991. Michael Chaffin, executive VP and president-elect since 1990 was named president of HPMG, which has 270 physicians.

February:

Alan HS Cheung, board-certified in general surgery and transplantation, joined Livingston Wong, Fong-Liang Fan and Whitney ML Limm. The Surgical Associates, Inc has offices at St Francis MOB, Ste 208, and The Queen's PB II, Ste 709.

Hors De Combat

Pat Saiki, our favorite former U.S. Representative and now Small Business Administration head said in a speech to the 12th National Legislative Congress on Small Business Issues in Kansas City: "A plan to require businesses nationwide to either offer health insurance for employees or pay a special tax for government-provided insurance for workers is unacceptably risky and basically impractical. When you analyze it, 'play or pay' will definitely devastate small businesses."

State DoH director John Lewin MD, who spent much of the past year lobbying in Washington for national health-care reform feels otherwise: "We need to dispel the myth that requiring everyone to have insurance increases health care costs ... It actually reduces them."

Sportsmen

The Annual Accupath Golf Tournament was held Thursday, March 12 at the Hawaii Kai Golf Course. It poured icy rain all 18 holes of play yet most of the die-hards finished with rain jackets soaked through and fingers frozen stiff. The format fortunately called for discarding the worst score. The fellowship was great and there were door prizes for everyone. Physician winners were:

1st place: Bill Dang - net 50
2nd place: Peter Wai - net 59
3rd place: George Shimamura - net 60
4th place: Kevin Chen - net 61
5th place: Ray Wong - net 61
6th place: Albert Tomai - net 61
7th place: I Rahmna - net 61
10th place: Francis Soon - net 64
11th place: Thomas Teruya - net 64
12th place: Roy Niimi - net 65
18th place: Herman Mercado - net 68
19th place: Mike Okihiro - net 68

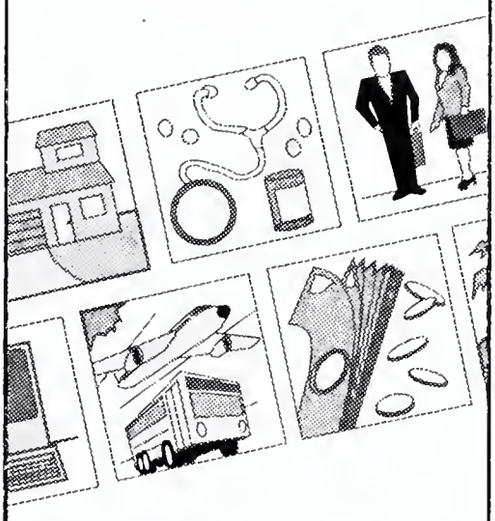
* * *

Hear about the lady golfer who was stung by a bee? She rushed back to the club house where the Pro directed her to a doctor's office nearby. The doctor asked: "Where were you stung?" Between the 1st and 2nd hole." The good doctor, a golfer himself

(Continued on page 168) ➤

PUT PARADISE IN PERSPECTIVE

Get the full story of Hawaii's business in a tightly written compendium of its economy, cultures, achievements and challenges.



Volume Discounts

1-9 - $5.95 ea.
10-24 - $5.50 ea.
25-99 - $4.95 ea.
100-199 - $4.45 ea.
200+ - $3.95 ea.

Crossroads Press, Inc.
P.O. Box 833
Honolulu, HI 96808

Enclosed is $_____ for _____ copies of the 1992 Edition of ***All About Business in Hawaii*** at $_____ per copy.

❑ Optional U.S. 1st class postage ($1.95 per copy)
❑ Payment enclosed
❑ Visa ❑ Mastercard ❑ Discover Card

Card Number Exp. date

Signature (required for charge orders)

Name

Address

City State Zip





The only place on Earth not governed by Murphy's Law.

Meet here and you simply can't go wrong.

Our seasoned Convention Services Manager takes care of everything. All 1,346 rooms have a picture view. Three ballrooms and 11 meeting rooms provide ample space.

You can't beat our catering staff and six restaurants for fine cuisine (which you can work off at our two pools and tennis court). And we're in a perfect spot overlooking Waikiki Beach.

So, you see, if something can go right, it will. That's Hawaiian Regent's Law.

For more information, call 808-921-5184.

hawaiian regent

A New Tradition in Hawaiian Hospitality.
Otaka Hotels and Resorts
2552 Kalakaua Avenue
Honolulu, Hawaii 96815-3699

THERE IS SOMETHING YOU CAN DO ABOUT AIDS



Life Foundation
The A.I.D.S. Foundation of Hawaii
924-AIDS

Aloha United Way
It brings out the best in all of us.

Enclosed is my tax deductible donation to help The AIDS Foundation of Hawaii

Name _____

Address _____

_____ **Donation $**_____

MAIL TO: LIFE FOUNDATION
P.O. Box 88980, Honolulu, HI 96830-8980

NEWS & NOTES

(Continued from page 167)

replied, "Then your stance is too wide."

(As told by humorist Cas Jasinski)

Quotables

Re RBRVS: "Under current regulations, a car mechanic gets more for examining a car than a physician receives for a complete physical examination of a patient." Martin Edelstein MD, Great Neck, NY (From *Medical World News*, January 1992)

* * *

"We Rent Sewer Snakes for Stuffed Up Heads" Sign, Hawaiian Rent All (Corner of McCully and Beretania streets) [Ed, our favorite humorist is back]

* * *

Pat Says:

Poll question: "What's the bigger problem: ignorance or apathy?"

Man on the street: "I don't know and I don't care."

Pat says: "That's the trouble with this world."

* * *

Pat says, "Tomorrow is already gone." "Why?"

"We worry so much at present about those mistakes we made in the past which may screw up tomorrow." "That's why."

(As told by Pat, our tennis playing philosopher)

Physicians Speak Up

Gene Altman notes that a national catalog offers an accurate alcohol breath analyzer for $149 made by the same company that supplies police departments. Gene suggests that bars and restaurants serving alcohol and even safety-minded private party hosts could offer this simple test free to imbibers [Ed/We think the idea merits looking into].

JAMA editor George Lundberg in the December issues states: "I want all physicians to take it as a personal responsibility to confront every patient they see about tobacco...and to badger them about their tobacco use." [Ed/Locally, crusading ENT Hideo Oshiro has been doing just that for the past 30 years.]

Oncology Conference

Case of a 77-year-old woman with obstructive jaundice and a pancreatic lesion.

Oncologist Ken Sumida: "This is a 72-year-old woman who is a therapeutic dilemma. One year ago she was worked up for abdominal discomfort an a CT scan showed a pancreatic mass. She had a gastrojejunostomy and a cholecystectomy. Biopsy of the pancreatic head showed chronic pancreatitis rather than adeno Ca. Rather than irradiate the mass, we opted to follow with CT scans. More recently, she developed jaundice. ERCP was suspicious for pancreatic Ca, but needle biopsies again did not show Ca. She is an extremely functional 77-year-old even with her past history of PVD and CVA in 1989."

Radiologist Dave Sakuda projected the

CT scans dating back to May 1990 which showed cystic dilation of the pancreatic duct. The post op scan showed further dilation and a recent CT scan showed bilary duct dilation as well. "The ERCP shows something blocking the duct, and we worry about Ca." Pathologist Larry McCarthy apologized: "This has been a difficult problem. The 1990 biopsy tissue showed no tumor cells. There is fibrous tissue with inflammation and a few ducts. Our report went out as 'chronic pancreatitis'."

Moderator Glenn Kokame: "The surgery is confusing to me. She had a gastrojejunostomy and then a cholecystectomy." Larry explained, "She had gallstones." Glenn was not satisfied: "She is 77, and she probably had stones all these years." Dr Brian Issell, director of the Cancer Research Center of Hawaii, was asked if there were any new drugs for pancreatic Ca. Dr Issell was brief: "None." Someone asked, "How about Laparoscopic biopsy?" Glenn: "The pancreas being retroperitoneal is hard to expose. You have to do a blind biopsy. If the patient has one or one and a half years survival time left, a surgical decompression could be recommended. Stents are hard to keep open."

David Sakuda was confident: "Stents are easily done, and we do them on preterminal patients. The question is the quality of life." Ken: "The surgeon is reluctant to do a surgical decompression because he will have to take down the gastrojejunostomy." Grant Stemmerman added, "There is a 5% survival of pancreatic Ca at 6 months. She is now 18 months and this raises the question of pseudo-tumor rather than adeno Ca." Glenn quipped, "In other words, give her a 10-foot pole. David, can you do a percutaneous transhepatic catheterization on her?" David reported smugly, "She's already been decompressed."

Miscellany

JOKES WE THOUGHT FUNNY

A farm boy accidently overturned his wagonload of corn on the road. A farmer who lived nearby went over to look. "Hey Willis," he called, "forget yer troubles for a spell and have dinner with us. I'll help you with the wagon later." "That's mighty nice of you," Willis said, "but I don't think Pa would like me to." "Aw, come on, son!" the farmer insisted. "Well, OK," the boy finally agreed. "But Pa won't like it." After a hearty meal, Willis thanked his host. "I feel a lot better now, but I just know Pa will be upset." "Nonsense," the farmer said," "where is your pa, anyway?" "Under the wagon."

(*Party Jokes PB* February 1992)

Oncology Dialogue

A 23-year-old single man has teratocarcinoma of the testicle. Oncologist Clayton Chong explained that chemotherapy is so effective there is no need for retroperitoneal surgery, which causes infertility and retrograde ejaculation. He felt the case calls for careful surveillance by following tumor markers, CXRs q 2 months and CT scans. If there is recurrence, it will occur within 6 months. If no recurrence within the period, the patient is cured.

Surgeon moderator Glenn Kokame reported that retroperitoneal nerve-sparing surgery bilaterally causes retrograde ejaculation while unilaterally does not. Oncologist Ken Sumida: "We plan intensive observation after normalization of tumor markers." Glenn asked, "How about the role of radiation?" Radiotherapist Ed Quinlan: "Very little place for radiation." Vince Brown agreed: "No role." Glenn called on Grant Stemmerman: "Stemmy, how about epidemiology?" Stemmy: "It is less common in Japanese here than in Japan. Less in blacks and whites. It's a disease of specific groups." Clayton: "MD Anderson epidemiology data shows an association with hernia repair for seminomas. Germ cell tumor patients would be dead. Netherlands data shows that the 12th chromosome may predict testicular tumors." Glenn asked, "How about chimney sweeps?" Stemmy: "That's for scrotal cancers."

In Memoriam

Masato Hasegawa — A man for all seasons and an avid polo player.

MM Hasegawa, 84, died quietly at his Nuuanu home on April 24, 1991. No funeral services were held and his ashes were scattered at sea with the ashes of his 2 beloved dogs, the Irish wolfhound and the Weimaraner.

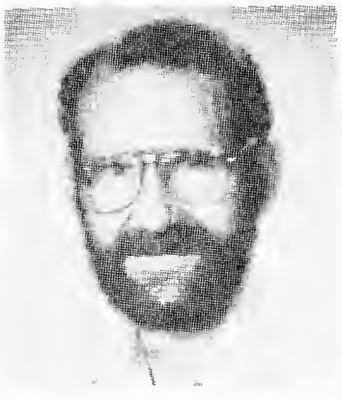
Masato was a colorful and witty intellectual adored by all. Masato was born in Wahiawa, attended Hilo High and San Mateo Junior College, and graduated from U of California in 1940. He was attending U of C med school when war broke out, and he was interned with the west coast Japanese.

In 1943, Masato joined the 442nd Combat Team and when the war ended, he continued his medical studies at Wayne State School of Medicine, graduating with distinction. After interning in Detroit, he served with the Military Sea Transport Service as a ship's surgeon and mustered out with the rank of Captain. He then continued as a resident in pediatric surgery at Harvard and at our Children's Hospital.

Since 1953, Masato served as chiefs of staff at Kapiolani Maternity Hospital, Children's Hospital and The Queen's Hospital. Masato was a founding member of Aloha United Way, and was twice commended by the State Senate for his services to the State and community.

In 1974, Masato earned a master's degree in business administration and in 1987 was a PhD candidate in economics. He lectured extensively in the UH Schools of Nursing and Social Work. He was a scholar and gentleman to the end.

We shall fondly remember Masato as a comic character, attired in polo outfit and driving his sports model Jaguar with 2 huge dogs squeezed in the front seat and polo stick protruding from a car window ... ■



Retirement Plans
•
Investment Management Consulting
•
Life and Disability Insurance
•
Charitable Remainder Trusts

mel r. hertz
MBA, CFP

Pacific Tower, Suite 2800
1001 Bishop Street
Honolulu, Hawaii 96813
(808) 599-4504

derand

Securities Offered Through IFG Network Securities, Inc. (IFG), Members NASD and SIPC. Financial Planning Services Through Associated Financial Planners, Inc. (AFP), Registered Investment Adviser. mel r hertz is a registered principal of IFG and a registered representative of its affiliate AFP, both of which are otherwise unaffiliated with derand.

Maka O Ke Kauka

Russell T. Stodd MD

Ignorance is a voluntary misfortune.

In an attempt to educate and protect the public, the American Academy of Ophthalmology spoke out against the claims of Laservision Inc. in regard to the use of pinhole glasses. "We are aware of no scientific evidence that single or repeated use of these glasses — with or without exercises — permanently improves vision." The Academy's position has been widely quoted by health care reporters (including David Horowitz appearing on the "Tonight Show") who investigated the pinhole glasses advertising claims. Predictably, Rick Kable, vice president of Laservision, stated that attorneys for the company would prepare a restraint of trade lawsuit against the Academy. The last refuge of the snake oil salesmen - the American legal system. But, as Phineas T. Barnum said...

Everyone is eloquent in his own cause.

Some criticism was received as a follow-up to last month's "Weathervane" mentioning Dr. Robert Reinicke's contribution to the campaign of Senator Wofford of Pennsylvania. Dr. Reinicke had suggested to the Senator that while the Sixth Amendment to the Constitution affords an accused felon the right to an attorney, there is no such provision to provide that a sick person has a right to see a physician. The phrase is obviously an imperfect analogy, yet it has a euphonious ring, and Senator Wofford wisely ran with it. Dr. Reinicke noted that the Sixth Amendment has allowed the attorneys to control the courts, and perhaps a similar policy would allow physicians to have better control of medicine. And it should be noted by all practicing physicians that the past 12 years of "friendly" Republican administrative leadership have brought us the confusion and dissension of the RBRVS; the capricious, bureaucratic, and sometimes abusive actions of the Health Care Financing Administration; the frighteningly minatory Richard Kusserow and his fraud unit; the National Practitioners Data Bank; and the absurd CLIA regulations; to mention just a few of the big verrucae grafted on the body of American medicine. So it appears somewhat importunate to criticize Dr. Reinicke for seeking some sort of change.

Some people think that whatever is done solemnly must make sense.

About 30 years ago the President of the Oregon Medical Association hit upon the idea of requiring member physicians to document their continuing medical education to retain membership. Prior to that primordial germ, it was properly believed that physicians, being intelligent professionals, made it a habit to maintain their skills. Not true, said our lawyer-dominated legislatures all across our beloved land, and laws were enacted establishing an ongoing blizzard of CME paperwork, demonstrating nothing save that a vacuum had existed in someone's head. Thus, the CPE (continuing professional education) industry was born. Needless to say, entrepreneurs have been exploiting the fertile CPE field ever since. The latest effort in this panoply of public relations veneer is the initiation of the American Board of Opthalmology's plan for "time limited" certification. Readers of this missal who were certified prior to 1992 have lifetime certification, but those passing their Boards this year and hereafter will need to recertify every 10 years. And if they don't bother, what then, ABO gurus?

There is no dying by proxy.

Is dying an individual duty, a right, or a privilege? A Beverly Hills attorney contingent brought a resolution to the American Bar Association House of Delegates which would allow attending physicians to fulfill a patient's request for help in dying. The ABA House refused to adopt the resolution, but a Bar committee is expected to introduce an alternative resolution on assisted suicide in the near future. And the doctors? So far, in the AMA House of Delegates there is negative reaction to Dr. Kevorkian and his suicide machine.

Nothing so needs reforming as other people's habits.

Some words about our nasty habits (which rarely enter into any discussion about health insurance) — each year Americans consume:

527 million cigarettes
8 billion cases of soft drinks
188 million barrels of beer
156 million cases of distilled spirits

The ophthalmologist said to the

If your patient's health comes first. Where does your business health come?

For timely news you can use...

PACIFIC BUSINESS NEWS

Every Monday since March 18, 1963

Pacific Business News
P.O. Box 833
Honolulu, Hawaii 96808

Bill
❑ Company
❑ Me

Charge to my
❑ Mastercard ❑ Payment Enclosed
❑ Visa
❑ Discover Card

Card No._____ Exp. Date _____

❑ 1 Year $43
❑ 3 Years $95
(Within Hawaii Only)

_____
Signature (required for charge order)

Name _____

Title _____

Company Name _____

Type of Business _____

Address _____

City _____ State _____

Zip _____ Phone _____

First Class & Foreign rates on request.
(808) 521-0021

accountant, "I hope I break even this year. I really need the money."

Reimbursement losses under the planned Medicare fee schedule will be even more than predicted for ophthalmologists, radiologists and cardiologists. The PPRC (Physician Payment Review Commission) found that by 1996, ophthalmology payments will be 19% less than rates prevailing in 1991, cardiology will drop by 13% and radiology will be down 21%. In addition, ophthalmology is the only specialty, and cataracts the only procedure, subject to in-office review for Medicare 65C+ patients. As Donald Sanders, MD, Editor of *Ocular Surgery News* put it, "We are not paranoid. They really are out to get us."

Addenda —

— Government corruption is always reported in past tense.

— History repeats itself. That's one of the things that's wrong with history.

— What do you get when you kiss a bird? Chirpies (It's a canarial disease that's untweetable.)

Aloha, and keep the faith.

rts

AMA's *This Week . . .*

AMA's Executive Vice President James Todd MD, together with editor Richard Lewis, have initiated a brief summation of vital information that is being distributed on a weekly basis to "the leaders of the medical profession by first class mail so as to arrive each Monday morning."

We feel that here in Hawaii we could do with a closer relationship with "organized medicine" as exemplified by the AMA; therfore, we shall try to include in the pages of the *Journal* excerpts of interest to the members of the HMA on an occasional basis.

The March 18 "This Week" is identified as Vol. 1 No. 1. It contains this bit of news:

"America's physician population grew from 260,484 in 1960 to 600,789 in 1989 ... In 1960 there was one physician for every 703 people; in 1989 the ratio was one per 416.

"Group practices have quadrupled in number ... the largest has 2,000 physicians in it ... in a recent survey, only 11% of Residents planned to go into solo practice.

J.I. Frederick Reppun MD
Editor

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

" Finally, a Business Hotel in Downtown Honolulu !"

Suites
$95-$150

EXECUTIVE CENTRE

1088 Bishop Street
Honolulu, Hawaii 96813
539-3000



SUNSETS FOR JUST $99.

PER ROOM 3 GUESTS MAXIMUM

- View glorious Poipu sunsets from our luxury resort — at a special rate for Kamaainas.
- Affordable extras! Golf, tennis, Polynesian luau and show. Our famous gourmet Sunday brunch. The broadway musical, "South Pacific," in its natural setting.
- Offer through 11/30/92. Call toll-free at 1-800-426-4122.

STOUFFER
WAIOHAI BEACH
RESORT

POIPU BEACH, KAUAI, HAWAII

CLASSIFIED NOTICES

To place a Classifed Notice, MEMBERS, please call Association Office at 536-7702. NON-MEMBERS, please call Leilani at 521-0021. 4 line min., approx. 5 words per line. Payment must accompany order.

BUSINESS OPPORTUNITY

Established General Practice for sale.
Waipahu. Equipment available.
Terms negotiable.
Phone 671-3931

EMPLOYMENT OPPORTUNITY

POSITIONS AVAILABLE

Physician Placement Hawaii has openings for physicians & other medical professionals all across the U.S. Mainland as well as here in Hawaii. We also have candidates interested in a Hawaii position. Call Earl Pajari at 395-7099.

OFFICES

WILL CONSIDER ALL OFFERS

AINA HAINA PROFESSIONAL BUILDING

1,064 sf turnkey previous medical ofc. & 837 sf ofc. space available. Lots of parking.

GREAT LOCATION

Carolyn Schnack Darrow (RA) 373-9644

Share 1,500 sq. ft. office. 2 exam rooms & surgery. Rent or lease. Residential corner lot. 1 story bldg. Adequate parking.

Ph. 247-2161.

EXECUTIVE PLAZA

1953 S. Beretania Street

New office bldg. Sale/lease. Ideal location for doctors & or medical profession. Up to 22,000 sf avail. Wagner & Wagner 526-0896

REAL ESTATE

MANOA

Best street. 4 bd., 3 ba. Divorce forces sale. Gaylyn Li-Ma 530-1266 (pager) 946-0646

SERVICES

WANT TO SAVE MONEY, TIME & HEADACHES?
Let MEDPRO show you how!

We come with 10 years of experience in filing all types of medical claims. For a free consultatin, please call 681-4434 and ask for Claudia Tateishi.

LOCUM TENENS PROVIDED

Internal Medicine and Family Practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS AVAILABLE

Family Practice, Pediatrics, Urgent Care.
No agency fees. Deal direct. 923-2981.

Special Consideration Given To HMA Members.



Meet Brian Hideo Walker, a member of the Executive Sales Team at Lexus of Hawaii. Sincere, soft spoken and knowledgeable, he'll be more than happy to assist you with your automobile needs.

Visit Lexus of Hawaii, your only authorized Lexus dealer, and see our complete line of automobiles at 744 Ala Moana Boulevard. Or call 54-LEXUS (545-3987) for more information and a complimentary brochure.

LEXUS
The Relentless Pursuit Of Perfection.

Lexus of Hawaii—A Division of Servco Pacific Inc.



Plans are gearing up for the

HMA 136th Annual Scientific Meeting

October 9-11, 1992
at the Ilikai Hotel

Check your mail for announcements of the upcoming annual meeting in Honolulu!

Lecture Report

The New E & M Codes

Boy, am I glad I'm retired from active duty as a practicing GP in the office!

So ... why did I go to the informative meeting? I'd heard it before from the *kuahaulehelehe* (lips giving forth many words, ie a cacaphony of sounds) from my good friend Bernie Fong, medical director of Aetna-Medicare, at a recent special meeting called by HMA for its members. Don'esk why!

There were more than 200 people in Hale Pulama Mau, the majority of whom seemed to be the office staff of physicians coming out of their bosses' offices (quite a few of their employers were there, too), for good reason. I sat between two of them; one had her new CPT codes down pat and the other was envious and sought to crib from the first as between schoolmates and friends.

Robert Bath, Pacific Area Rep for HCFA stationed in Hawaii (a real honor for Hawaii as just one state with such a rep), was introduced by Paul DeMare, the new president of HCMS after HMA prexy Wallach had given a brief horror slide show, in beautiful colors, of what was to come.

Bath essentially introduced himself and HCFA to the audience. The federal Health Care Financing Agency is set up to manage the financing of Medicare and Medicaid only. It does so by contracting out to other agencies and to private insurance carriers (such as HMSA in Hawaii). Medicare is totally federal but Medicaid is shared by the feds and the states in terms of money spent. Most outlier reps from HCFA have 3 or 4 states to advise and monitor but Hawaii, as stated above, has one all to itself. HCFA/Hawaii has a huge office of 2 people, Bath and one secretary, in a cubbyhole (with 10 phones, we presume).

Bath made it clear that he was here to field questions and discuss problems as a resource person. If he didn't have a handle on the answer, he would say so and assure the questioner that he would get the answer pronto, "even if it needed to go all the way up to Darman," he said under his breath. He indicated that he would work closely with the two Bernies, Fong and Ho (HMSA), and would rely on them to help him.

Bernie Fong then went through his routine, stating that he himself still was somewhat in the dark emphasizing that the old codes could not be transposed to the new ones — that all began with 99 — and were called Evaluation and Management Codes. He stated that there were just 3 levels in all instances but that actual decision-making would depend on the complexity of the patient's problem.

Physicians and their staffs will have to study and learn the details at repeated learning sessions or "by reading the book," said Bernie with a ghoulish snicker, knowing what a mind-boggling thing it would be. He himself had devised an algorithm that he could grasp in his own internal medicine practice:

S - 1 2 3 4 5	Subjective, the patient's complaint and history
O - 1 2 3 4 5	Objective — examination, lab, etc
A - 1 2 3 4 5	Assessment
P - 1 2 3 4 5	Plan of attack or treatment

Bernie would circle the numbers according to level of intensity or importance at each level from least to most or vice-versa and get an average, then assess the seriousness of the situation, and lastly, the amount of time spent (the factor given the least value by HCFA). (Anybody interested in buying stock in stopwatches, methinks?)

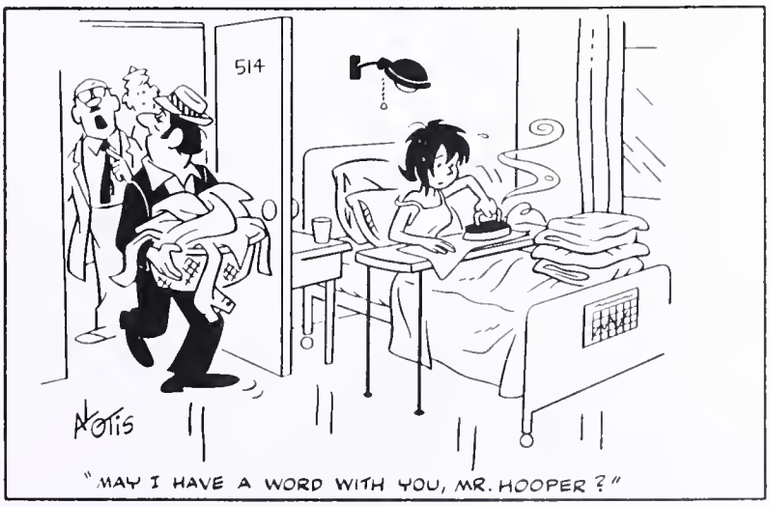
He closed by saying that the plan was to review and assess the results in up to 100 claims during the first 6 months of 1992 to see how the new scheme in billing for services rendered was working out; and he felt it would be done best by the Medical Review Committee of the HCMS, ie by physicians, before it went up to HCFA to review. (We predict there will be a national uprising of medical revolutionists — mainly doctors' bookkeepers — within 3 months!)

Bernie Ho, representing HMSA, was the last speaker before the recess, after which written questions from the audience would be entertained. He gave his usual smooth delivery, outlining HMSA's plea for collaboration with physicians rather than being in an adversarial situation. He felt that, in terms of trying to control the runaway costs of medical care in this country, managed care was here to stay and to grow.

Speaking for HMSA, Ho said that it would continue to stick to the old system of coding in non-Medicare claims for many months more, until it could change its computers to conform to the new. We presume that he meant this also for Medicaid claims, but we need to check that out. This means the poor benighted office staff will have to deal with 2 systems, much less being able to go through the confusion of discarding the old in order to learn the new.

The human computer/brain has its limits, Oh HCFA dear! Though retired, footloose and fancy free, don't ask me to do any locum tenens, dear colleague!

J I Frederick Reppun MD
Editor/reporter





"I'm captain of my boat...with the help of my Investment Monitor Account from First Hawaiian Bank."

"The Investment Monitor Account℠ is a blend of mutual funds watched over by First Hawaiian and one of the nation's largest independent monitors. They make sure only the top performing funds are included. If a fund falters, they replace it with one that's performing better.

"And I pay no commission on these transactions. Bad news for my former broker. Good news for me.

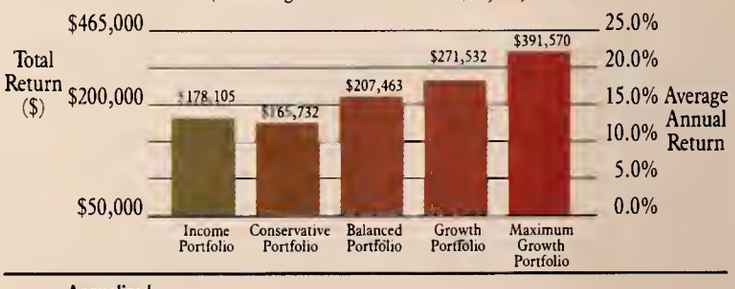
"The monitor oversees more than 5,000 portfolios for multimillion dollar institutional investors. And me. With only $50,000 invested.

"Once in a while, my boat and I get into rough waters. But I don't worry about my investments. Because they're in the hands of the best navigator I know."

You'll have a choice of five investment portfolios or strategies, each of which will use a blend of selected funds.

Here's how our investment portfolios have performed from 1982 to 1991, assuming an initial investment of $50,000.

10-YEAR PERFORMANCE OF PORTFOLIOS OF SEI MUTUAL FUNDS (1982–1991)*
(Assuming Initial Investment of $50,000)



	Income Portfolio	Conservative Portfolio	Balanced Portfolio	Growth Portfolio	Maximum Growth Portfolio
Annualized Total Return*	**13.5%**	**12.7%**	**15.3%**	**18.4%**	**22.9%**

*Performance results for some years used comparable stock, bond and money market historical indices, where an SEI fund had not been in existence for the full 10 years. Performance results for the Income Portfolio are for 6 years only. All securities markets are subject to fluctuations; therefore past results are not indicative of future performance.

First Hawaiian Bank
The Answer is Yes.

INVESTMENT MONITOR ACCOUNT

Journals
W1
HA
968

JULY 1992
VOL. 51, No. 7
SN: 0017-8594

Hawaii Medical Journal

Hawaii Medical Journal
UCSF LIBRARY
Received on: 08-19-92

CONTENTS

EDITORIALS

The Dillon Plan for U.S. health care
J I Frederick Reppun MD 178

Starting from the bottom up
John B Dillon MD 178

Rabies
JI Frederick Reppun MD 180

Medicine is not pure science
JI Frederick Reppun MD 180

RABID BAT DIAGNOSED IN HAWAII
David M Sasaki DVM MPH
Charles R Middleton MS
Thomas R Sawa DVM PhD
Glenn Y Kobayashi BA 181

ELIMINATION OF PREVENTABLE BLINDNESS
George Plechaty MD
Ronald E Smith MD
Arnall Patz MD 186

NEWS AND NOTES
Henry N Yokoyama MD 188

MAKA O KE KAUKA
Russell T Stodd MD 194

U OF CALIFORNIA-SF
LIBRARY
SERIALS DEPT, BOX 0840
530 PARNASSUS AVE
SAN FRAN, CA 94143-0340

HAWAII MEDICAL ASSOCIATION
1856

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively

Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

Hawaii Medical Journal

(USPS 237-640)

Published Monthly for the
Hawaii Medical Association
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor: J I FREDERICK REPPUN MD
Founding Editor: HARRY L ARNOLD JR MD
News Editor: HENRY N YOKOYAMA MD
Contributing Editors: STEPHEN RPK BRADY MD, FRANCIS H FUKUNAGA MD,
Editorial Assistant: SUSANNE WEEKS
Publisher: STEPHEN S LENT

Editorial Board
NORMAN GOLDSTEIN MD
ROBERT TS JIM MD
JAMES LUMENG MD
FRANCIS D PIEN MD

Publications Committee: MYRON E SHIRASU MD (Commissioner)
HENRY N YOKOYAMA MD (Chair)
ERLAINE BELLO MD, STEPHEN RPK BRADY MD, NADINE BRUCE MD, NATHANIEL PH CHING MD, OSAMU FUKUYAMA MD, ROBERT C GALAGAN MD, FRED GILBERT JR MD, ROBERT HOLLISON MD, AMOD JAIN MD, ROBERT TS JIM MD, JOHN HC KIM MD, H LORRIN LAU MD, JAMES LUMENG MD, BAL RAJ MEHTA MD, FRANCIS PIEN MD, J I FREDERICK REPPUN MD, MYRON E SHIRASU MD, KIM THORBURN MD, RONALD J WONG MD, TERRY CY WONG MD, GUY N YATSUSHIRO, STEPHEN J WALLACH MD

OFFICERS
President: STEPHEN J WALLACH MD
President-Elect: JEANETTE HJ CHANG MD
Past President: JOHN T MCDONNELL MD
Secretary: ANDREW DON MD
Treasurer: JOHN S SPANGLER MD

County Presidents
Hawaii: RICHARD KM LEE-CHING MD
Honolulu: PAUL A DeMARE MD
Kauai: LARRY MAGNUSSEN MD
Maui: LEONARD H SAKAI MD
West Hawaii: MINOLU R CHENG MD

Delegates to AMA
CALVIN CM KAM MD
RUSSELL T STODD MD
Alternate Delegates to AMA
STEPHEN J WALLACH MD
JOHN T MCDONNELL MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237-640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Non-member subscriptions are $18. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814.

Copyright 1992 by the Hawaii Medical Association. Printed in U.S.A.

Rx Considerations:

- ❑ Personality and domestic conditions are significant obstacles to recovery.
- ❑ Patient has poor posture and movement skills.
- ❑ Secondary gain from pain (money, sympathy) is more important than healthy choices.



BACKWORKS HAWAII Inc

Active, Progressive Physical/Occupational Therapy

Gentle, but firm support for your patients since 1988

945 Kamehameha Hwy • Pearl City, Hawaii 96782

456-7077



DYNASTY II

Award Winning Chinese Cuisine

Featuring Numerous Delicacies such as Peking Duck, Imperial Shark's Fin & Live Ocean Seafood

- *Beautiful Sunset View Overlooking Kewalo Basin, Fisherman's Wharf*
- *Ample Parking*
- *Luxurious Chinese Antiques Ambiance*
- *Spacious, Private Banquet Facilities*
- *Luncheon Buffet*
- *Orders to Go*
- *Gift Certificates Available*

DYNASTY 皇朝酒家

Lunch: 11am to 2 pm • Dinner: 5:30 pm to 10 pm
Ward Warehouse • Second Floor • 1050 Ala Moana Blvd.
531-0208



The Dillon Plan for U.S. health care

John B Dillon MD MS BS FACP earned his medical degree in 1943 at the St Louis University School of Medicine. He became a resident at Letterman General Hospital in San Francisco in anesthesia, and became Chief of Anesthesia in 1946. He not only had a long and distinguished career as an anesthesiologist in the California hospital systems but also on the faculty at UCLA, culminating as Professor of Anesthesiology in 1973. He has also been active in organized medicine with the LA County Medical Society, the California Medical Association and the AMA; he served 6 years as a member of the AMA House of Delegates. His CV fills 16 typewritten pages. He has received numerous awards, and he has been published 117 times, writing not only on matters within his field but also on many aspects of medical practice. At the age of 81, he is retired and living in Koloa, Kauai.

John Dillon is still very active, involving himself in many things. With such a background in medicine his opinion carries weight, and we are happy to have him submit in this issue of the *Journal* a guest editorial on health care in the United States. As a long-time anesthesiologist, John has had a unique opportunity to assess the capabilities and vagaries of surgeons in particular, and of physicians in general, while holding the lives of their patients in his embrace.

We hope Dillon's treatise will stimulate others within our noble profession to devote some of their energies to assessing the plethora of proposals now being bandied about nationally — proposals to "change things". We agree with John: That changes, if warranted, or modifications, for certain, should be devised and designed "from below", ie by us in the profession.

We do not endorse the "Dillon Plan" *in toto*; it provides food for thought, however.

J I Frederick Reppun MD
Editor

Starting from the bottom up

There seems to be almost universal agreement that there needs to be changes in the manner in which health care is provided to the people of the United States. Those who seem to disagree with this are the insurance companies, who profit by the status quo, some physicians and other immediate providers of health care. Attorneys who profit by allegations of malpractice and negligence will also be upset when major reforms occur.

The majority of "consumers" believe that changes in health care delivery are necessary. All agree that costs are excessive and the delivery system is uneven and discriminatory; however, there is little agreement as to how to correct the situation.

Most will probably agree that medical care should not be based upon the profit motive; instead, providers should be satisfied with receiving a reasonable and fair compensation. Almost everyone agrees that medical care is now a right. It is generally recognized that, like other things in life, medical care will not always be of the highest quality for all patients because those who provide it cannot always be the best and the brightest. There is always someone at the bottom of the class but nevertheless certifiable as a fully trained physician or other provider. Some hospitals will always be better than others.

However, there must be an acceptable and universal delivery of basic medical care available to satisfy every patient's need, not necessarily his or her wants. Whether certain exotic treatments should be provided for patients, where the improvement gained in life expectancy or in improved function is negligible, would have to be determined. This is an ethical issue.

It is reasonable to believe that the necessary changes will not come from the top. The system is too vast and entrenched. Medicine suffers from a severe narcissus complex. The changes that will come must come from the bottom.

The first proposition that must be accepted is that no patient should ever receive a bill for medical care, nor for prescription drugs (which should all be generic). All costs must be paid through a single carrier, rather than by the vast insurance bureaucracy that now exists, with its monumental overhead and excessive profit.

Financing should be by taxation, eliminating the need for any insurance. Management of the program should be at the state level through a single department. Since all charges would be standardized there would be no incentive to pad bills. Patients would receive the care they need. Charges should be uniform and standardized, both by the individual health care provider and by the hospitals. All health care providers should be salaried and their incomes capped.

The second proposition is that medical education must be modified to accommodate the revised ethic. Medical education should be patient-oriented rather than to disease and science. The education of medical students should be subsidized. For this the student should, upon completion of medical school and 1 year of rotating internship including obstetrics and pediatrics, be obligated to spend 5 years receiving a graduated salary in providing primary health care under supervision. After the 5 years, the physician might apply for residency training or go into research. By this time he or she would be truly a full-fledged physician.

This would obviate specialists with tunnel vision, as is so common today, who are highly trained technicians but with no knowledge or interest in the patient as a whole but only in his or her disease. Specialty training should be shortened. During that training the physician would receive a salary, starting at the last salary level received as a primary care physician and increasing every year by some amount until the residency or

(Continued) ➤

For the many faces of mild hypertension

MILD



THE MOST WIDELY USED CALCIUM ANTAGONIST AS MONOTHERAPY FOR MILD HYPERTENSION[1]*

- Effective 24-hour control[2]
- Single-agent efficacy
- Well tolerated†
- No adverse effects on total cholesterol, plasma glucose levels, renal function‡ or serum electrolytes[3-6]

ONCE-DAILY Calan® SR verapamil HCl 180 mg SUSTAINED-RELEASE CAPLETS 240 mg

For the many faces of mild hypertension

*The recommended starting dose for Calan SR is 180 mg once daily. Dose titration will be required in some patients to achieve blood pressure control. A lower initial starting dosage of 120 mg/day may be warranted in some patients (eg, the elderly, patients of small stature). Dosages above 240 mg daily should be administered in divided doses. Calan SR should be administered with food.

†Constipation, which is easily managed in most patients, is the most commonly reported side effect of Calan SR.

‡Verapamil should be administered cautiously to patients with impaired renal function.

References: 1. Data on file, Searle. 2. Edmonds D, Würth JP, Baumgart P, et al. Twenty-four-hour monitoring of blood pressure during calcium antagonist therapy. In: Fleckenstein A, Laragh SH, eds. *Hypertension—the Next Decade: Verapamil In Focus*. New York, NY: Churchill Livingstone; 1987:94-100. 3. Midtbø KA. Effects of long-term verapamil therapy on serum lipids and other metabolic parameters. *Am J Cardiol*. 1990;66:13I-15I. 4. Fagher B, Henningsen N, Hulthén L, et al. Antihypertensive and renal effects of enalapril and slow-release verapamil in essential hypertension. *Eur J Clin Pharmacol*. 1990;39(suppl 1):S41-S43. 5. Schmieder RE, Messerli FH, Garavaglia GE, et al. Cardiovascular effects of verapamil in patients with essential hypertension. *Circulation*. 1987;75:1030-1036. 6. Midtbø K, Lauve O, Hals O. No metabolic side effects of long-term treatment with verapamil in hypertension. *Angiology*. 1988;39:1025-1029.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol and propranolol clearance may occur when either drug is administered concomitantly with verapamil. A variable effect has been seen with combined use of atenolol. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Verapamil may inhibit the clearance and increase the plasma levels of theophylline. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. There was no evidence of a carcinogenic potential of verapamil administered to rats for 2 years. A study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes, reversible non-obstructive paralytic ileus. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, galactorrhea/hyperprolactinemia, increased urination, spotty menstruation, impotence.

4/11/91 • P91CA6277V

Address medical inquiries to:
G.D. Searle & Co.
Medical & Scientific Information Department
4901 Searle Parkway
Skokie, IL 60077

© 1992 Searle

A92CA6694T

SEARLE

G.D. Searle & Co.
Box 5110, Chicago, IL 60680

other training is completed. I believe this system of medical education would not only increase the number of applicants to medical school but also improve their quality.

Nursing education should also be subsidized. Nursing students should be required to spend several years bedside nursing before any specialization leading to a degree would occur. If higher degrees are desired, the nurse should be directed toward medical school. Other providers would receive appropriate subsidized education and training. As with physicians, income would be capped.

The last proposition is that all suits for alleged malpractice, either by omission or by commission, should be settled by mandatory binding arbitration with all legal fees to be paid by the claimant (unless arbitrated), but however derived, capped. At least part of this proposition is in place and being used by some providers. Besides not providing medical care for all, the United States is the only country in the developed world wherein lawyers may charge contingency fees.

John B Dillon MD
Guest editor from Kauai

Rabies

The case report in this issue of the *Journal,* by veterinarian David Sasaki of the State Department of Health and others, gives proof positive of the value of Hawaii's animal quarantine program.

Hawaii's program has withstood assaults from many directions and by many people who are more concerned about their own pets than they are about the lethal scourge of the rabies virus, should it become prevalent in our state and affect the general public. As the authors of this article point out clearly, Hawaii is only one of 4 places where so far rabies is nonexistent; the other 3 are Australia, Great Britain and New Zealand. The other 49 states of the U.S. are *not* —repeat, *not*—free of the dread disease.

The authors, Drs. Sasaki and Sawa, and Messrs. Kobayashi and Middleton of the DoH, and Christensen of the Department of Agriculture, are to be commended for a job well done and for an excellent report: "Rabid bat diagnosed in Hawaii". Included in our commendation are the people of Sea Land Hawaii, the shipping firm, and those from Hawaii Stevedores Inc, without whose immediate and full cooperation the rabid bat might have eluded surveillance.

J I Frederick Reppun MD
Editor

Medicine is not pure science

As the practice of medicine enters the era of the marketplace, it not only has to maintain its status as a science ever striving for credibility, but also as the art of healing. The latter has elicited increasing attention the past decade or two as more and more people — our patients — demand an approach to the whole person, rather than to a body made up of organs and parts. As if that weren't enough, the medical profession needs to become versed in the economics of doing business and abiding by the stacks of rules and regs that govern the marketplace. All of this is rather overwhelming for the doctor who wishes to concentrate purely on helping people recover from their disabilities.

The physician needs a break; he or she needs to have their batteries recharged at intervals.

The conferences that David Elpern has spearheaded on Kauai and Molokai are just that: Moments in which to relax, consider one's professional career from afar and look to the horizon of the future, personally as well as professionally. They almost always include science, art and the marketplace.

In this issue of the *Journal,* we call the reader's attention to Elpern's introductory remarks that he gave to some 125 registrants at "Health Matters," a 4-day conference at beautiful and spectacular Poipu on Kauai.

We noted and reacted favorably to his subtle but not so gentle remarks on the subject of getting accreditation for the registrations from the medical powers that be, namely the HMA and the JABSOM at UH. Those "bean-counters", as he calls them, are a necessity in order to preserve our credibility, we earthlings of dubious honesty, but they are sticklers for rules that rarely let the art supercede the science of medicine.

We like the way David Elpern brings together the physician and the patient becoming better known impersonally nowadays as the health care provider and the consumer (ugh!). We like the way he brings together our essential para-professionals: Nurses, therapists, social workers and others, who often have an intermediary role and are sometimes closer to the patient than is the physician, alas; brings them into the same intimate and friendly milieu of a conference in a beautiful spot where Nature holds sway.

This particular conference took place on a part of Hawaii that is in the national limelight. Hawaii's people are concerned that the projected interceptor missile program funded by Star Wars at the PMRF at Barking Sands will pose a threat to the people and the environment. A pertinent diversion at the conference was in response to a request from Responsible People for Responsible Government, spark-plugged by Liz Freeman. It was an evening session at which Victor Sidel MD, distinguished Professor of Social Medicine at Einstein College of Medicine in New York and a member of the IPPNW delegation that received the Nobel Peace Prize in Oslo in 1985, spoke at the Lihue Parish Hall. He later met with Senator Inouye who promised to do what he could to protect Kauai and its people. Physicians have a social responsibility, no less!

We hope that David will neither quit nor burn out. We urge readers to give the Kauai Foundation for Continuing Education their sincere support.

J I Frederick Reppun MD
Editor

Rabid Bat diagnosed in Hawaii

David M Sasaki DVM MPH*
Charles R Middleton MS**
Thomas R Sawa DVM PhD+
Charles C Christensen MAg++
Glenn Y Kobayashi BA+++

Since 1966, the Hawaii State Government has been conducting Fluorescent Rabies Antibody (FRA) testing on animal brains as part of a statewide rabies-surveillance program. On April 3, 1991, the Department of Health (DoH) laboratory diagnosed the first case of rabies detected in the State. A large brown bat, Eptesicus fuscus fuscus, captured in a transport container that had just been off-loaded from a ship at Honolulu harbor, was caught. It's brain was examinied and showed typical fluorescent staining patterns for rabies virus. The USPHS Centers For Disease Control (CDC) rabies laboratory confirmed the diagnosis 2 days later. The successful interception of this rabid animal was the result of close cooperation between the private sector (Sea Land Service, Hawaiian Stevedores) and the Hawaii State Government Departments of Health and of Agriculture.

Introduction

Hawaii is the only rabies-free state in the United States. Since 1912, the State of Hawaii has maintained a mandatory 120-day quarantine on all incoming dogs and cats to prevent the introduction of rabies into the State[1]. The only current exceptions are dogs and cats flown directly from the United Kingdom, Australia and New Zealand — countries the State acknowledges to be rabies-free by virtue of similar or more stringent surveillance and quarantine programs.

Rabies surveillance activities conducted by the State, however, extend far beyond the animal quarantine program. In the incident reported here, a number of other state agencies charged with protecting the integrity of the environment played prominent roles in keeping Hawaii free of rabies. The Department of Agriculture's (DoA) Plant Quarantine Branch (PQ), responsible for protecting the State against entry of prohibited foreign plants and animals, captured the bat before it could escape. The DoH's Vector Control Branch, charged with the control of disease-producing/transmitting vectors, caught and killed all mongooses in the area immediately adjacent to the unloading pier. The diagnostic capabilities of this branch, responsible for disease surveillance and investigation, determined that no one who had close contact with the bat had been exposed to rabies.

Case Report

On March 27, 1991, the container ship *Sea Land Hawaii* arrived from California and docked at Sand Island. In the process of unloading the containers, a live bat was discovered by stevedores in a container of automobiles that had been loaded in Oakland, California. The stevedores immediately closed the container and reported it to their supervisor, who notified Sea Land personnel. Sea Land in turn notified the DoA plant quarantine inspector on site. Additional DoA PQ personnel arrived, entered the containers and sealed off the entrance to prevent the animal's escape.

Inside the dark container, they located the bat by flashlight and sound. Wearing protective gloves to avoid being scratched, bitten or contacting its body fluids, the bat was finally captured behind a plywood board in a corner of the container. In the process of extracting the bat, its wing was inadvertently broken. The bat was then placed in a plexiglass container to prevent contaminating the handlers.

The animal was photographed and turned over to DoA PQ animal inspectors for examination by the DoA veterinary laboratory. By the time the pathologist examined the animal on the following day, it had died. Post-mortem examination revealed it was an adult male, insectivorous bat. The only gross lesion observed was the broken wing. The brain was removed and half was sent to the DoH laboratory for FRA testing.

At the DoH laboratory, representative samples of the bat's

(Continued) ➤

* Veterinary Medical Officer, Hawaii Department of Health, Communicable Disease Division, Epidemiology Branch, Honolulu, Hawaii.
** Epidemiology Specialist, Hawaii Department of Health, Communicable Disease Division, Epidemiology Branch, Honolulu, Hawaii.
+ Chief, Veterinary Laboratory Branch, Hawaii Department of Agriculture, Division of Animal Industry, Honolulu, Hawaii.
++ Land Animal Specialist, Hawaii Department of Agriculture, Division of Plant Industry Plant Quarantine Branch, Honolulu,Hawaii.
+++ Chief, Medical Microbiology Branch, Hawaii Department of Health, Laboratories Division, Honolulu, Hawaii.
Reprints:
David M. Sasaki DVM
Hawaii Department of Health
Epidemiology Branch
P.O. Box 3378
Honolulu, HI 96801-9984
Phone: (808) 733-9072
Fax: (808) 733-9015

Submitted: April 13, 1992

cerebrum, cerebellum and brain stem were taken. The sampling and testing procedure used was based on the CDC's "Laboratory Methods for Detecting Rabies,"[2] with a modification of diluting the conjugate with phosphate-buffered saline. Impression smears of selected regions of the brain material were made on standard glass microscope slides and allowed to air-dry. The slides were fixed in acetone overnight at 4°C and the next morning were removed from the acetone and stored at -20°C.

A proficiency survey set of slides from the State of Maryland (which included a bat sample) was used as a positive control. All slides to be reviewed were allowed to warm to room temperature and air-dry. The bat brain smears were then examined using a fluorescent microscope with appropriate filters.

All smears examined were found to be positive in varying degrees.

The positive test was reported to the DoH Epidemiology Branch on April 3, 1991. On the same day, tissue samples were air-freighted to the CDC in Atlanta. Also on April 3, Epidemiology Branch personnel initiated investigation and control measures to: 1) Determine if the bat had exposed any person or animal to the virus; 2) immediately implement mongoose and feral cat trapping at the pier by the DoH Vector Control Branch, and to have Rapid Fluorescent Focus Inhibition testing (RFFIT) at the CDC of serum specimens of all animals trapped; 3) determine if there were any other animals in the other containers on the same ship; and 4) trace the origin and route of the automobiles in the container and the itinerary of the ship on its route to Hawaii.

It was determined that 8 people had close contact with the bat, but that none of the 8 had been exposed to the rabies virus, ie none had been scratched, bitten or had direct contact with the bat's body fluids. Vector Control personnel set traps in the area 3 times, capturing 7 mongooses; all tested negative on the RFFIT, which measures rabies antibody levels.

No other animals were found in any of the other containers off-loaded from that ship.

The ship had been loaded in Oakland, California, and had made a stop in Long Beach, California before sailing for Hawaii. The 3 automobiles in the container in which the bat was found came from a General Motors plant in Detroit, Michigan, and had been driven from Detroit to Oakland.

On April 5, 1991, CDC telephoned confirmation of the positive laboratory test on the bat brain. Histological examination of the brain by DoA officials had revealed inclusion bodies in brain cells suggestive of rabies.

On April 8, 1991, a joint press release was issued by the DoH and DoA to notify the community of the incident and to report the laboratory confirmation of rabies in the bat.

The entire 3¼ inch bat carcass was shipped to CDC and subsequently to Dr. Denny Constantine in California, an expert on bats. He identified it as a big brown bat, an insectivorous species commonly found throughout the United States. This species previously had never been sighted in Hawaii[3].

Subsequent monoclonal antibody studies[4] on the rabies virus identified it as one common in the western and midwestern United States.

Discussion

Hawaii is the only state in the Union that is rabies free; it is one of the few areas in the world that remains rabies-free because of stringent quarantine of entering pets, and because of regular laboratory testing of such animals for rabies (active surveillance). Because the disease is invariably fatal and its incubation period is so variable in infected mammals and humans, there is continuing concern over any relaxation of the regulations in our surveillance program. This has been addressed numerous times over the years in prior issues of the *Journal*[5,6,7,8].

The potential for ease of entry to Hawaii of rabid bats, as might well have occurred in this incident, is evident when considering national animal rabies surveillance data. In 1990, there were 4,881 cases of animal rabies reported in the U.S.[9], of which 88% were reported in wild animals. Of the total of wild animal rabies, 14.7% were reported in bats. By state, California reported the highest number of bat rabies (105), accounting for 16.5% of reported bat rabies in the U.S. in 1990. Bats were also the second most frequently diagnosed species that had rabies in that state. Because bats can fly and are not ground-based mammals, they have a potential for transmitting the virus over an area greater than that of terrestrial mammals.

Rabies surveillance in Hawaii is a cooperative activity involving many public and private organizations. The State DoH and DoA monitor animal importation in order to prevent the introduction of rabies. DoA programs include plant and animal quarantine, livestock disease control and veterinary laboratory testing. DoH programs include control of zoonoses, fluorescent rabies antibody laboratory testing and vector control. The collaborative surveillance programs center on testing the following:

1) All animals dying or euthanized in the Animal Quarantine Station,

2) all illegally imported mammals,

3) possible exotic pet vectors (eg monkeys) that bite people,

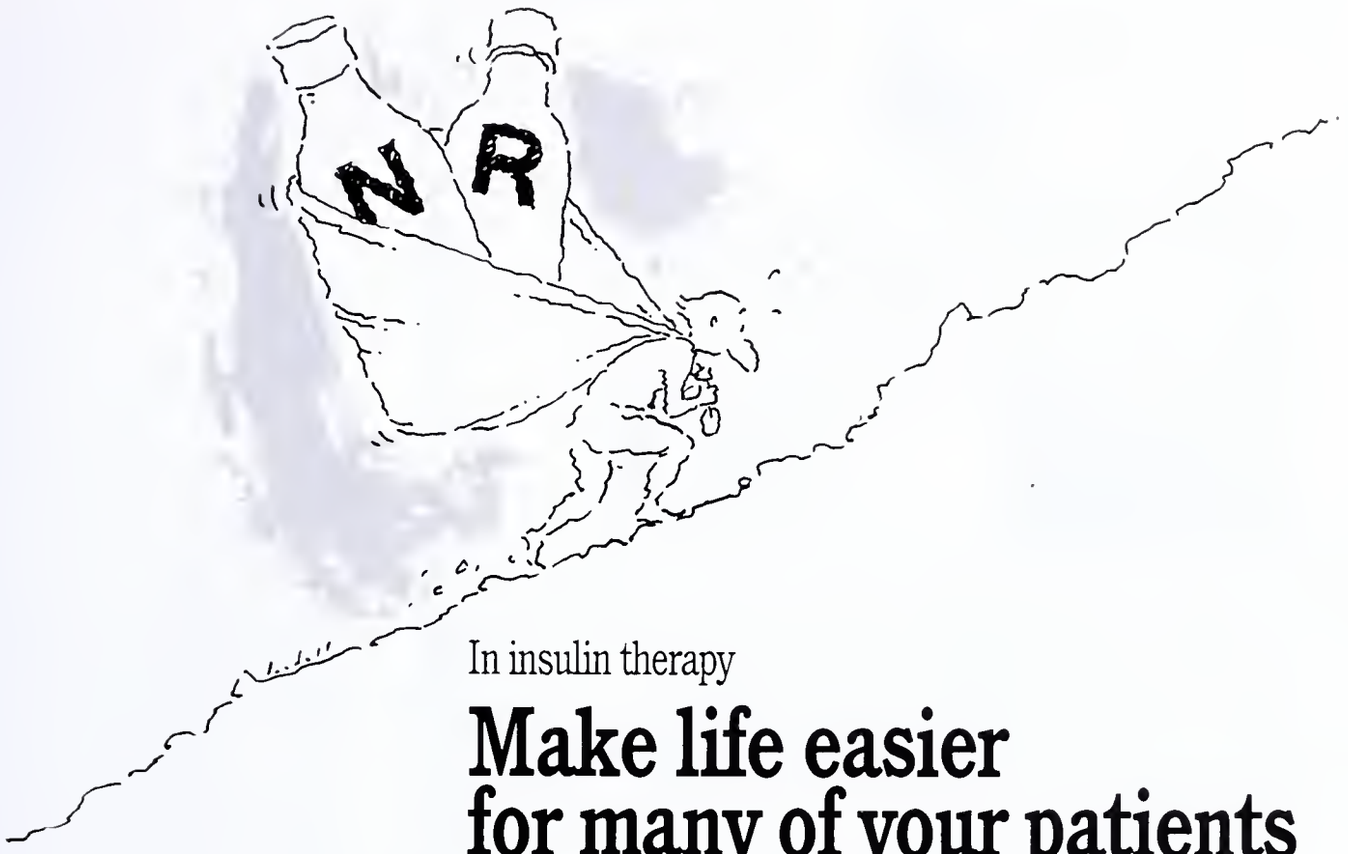
4) Mongooses and stray cats trapped in the vicinity of the Animal Quarantine Station.

Veterinary practitioners contribute to the program by submitting specimens from pets suspected of having central-nervous-system disorders consistent with rabies. Primary care physicians monitor people for possible exposure to rabies by evaluating and providing post-exposure prophylaxis to people in Hawaii who might have been exposed to potentially rabid animals while traveling in rabies-endemic areas. The DoH Zoonoses Section provides assistance to physicians who request it in this area.

Because of Hawaii's rabies-free status, the DoH does not require the reporting of bites by animals, as is required in the rest of the U.S. in rabies endemic areas. The State government does not require or recommend that local pets receive vaccinations against rabies. These monetary savings are part of the substantial economic benefits, in addition to public health and social benefits, of Hawaii's rabies-free status.

The DoH laboratory does not perform the actual work on the live virus in the area of rabies due to the State's rabies-

(Continued) ➤



In insulin therapy

Make life easier for many of your patients

Humulin 70/30. Convenient and simple to administer. No more mixing. No more mixing errors. All of which makes living with diabetes a little easier for patients. And compliance a lot easier to achieve.



Humulin® 70/30

70% human insulin isophane suspension
30% human insulin injection
(recombinant DNA origin)

The patient-friendly premix

Global Excellence in Diabetes Care

Eli Lilly and Company
Indianapolis, Indiana
46285

WARNING: Any change of insulin should be made cautiously and only under medical supervision.

HI-7905-B-249327 © 1992, ELI LILLY AND COMPANY

SHERATON MAKAHA
RESORT AND COUNTRY CLUB



THE KAMAAINA
"WHOLE IN ONE"
$85*
ROOM AND GOLF PACKAGE

Now you can play 18 holes of Oahu's most challenging golf (with a 74 USGA rating) at Sheraton Makaha West Course. Then relax and spend the night in our peaceful, country-club atmosphere. All at a special little "Whole in One" rate.

Just $85 per person, per night, Sundays thru Thursdays. $95 per person, per night on weekends. Play an additional round on the same day at a special rate (space available).

For "Whole in One" reservations call Sheraton Makaha at 695-9511.

* Per person, per night. Based on double occupancy. For a limited time only, subject to space availability. Single golfer rates also available. Rates do not include applicable state taxes. Proof of Hawaii residency required.

Sheraton Makaha
RESORT & COUNTRY CLUB
OAHU
ITT Sheraton

BIOHAZARD

PERSONAL
PRECAUTIONARY APPAREL

YOUNG LAUNDRY
& DRY CLEANING
834-7560

"Complete Rental Service for the Healthcare Professional"

Rabid Bat
(Continued from page 182)

free status (live rabies virus is not permitted entry into the State even for diagnostic or experimental use), and also because of the lack of adequate containment facilities. The regulatory restrictions pertinent to working with the live virus prohibit the use of supplemental confirmatory testing, such as mouse inoculation or cell cultures that are normally used. As a result, brain smears that show suspicious positivity are sent to the CDC for confirmatory testing.

In 1967, a rabies scare occurred in Hawaii[5]. Due to multiple mistaken laboratory diagnoses and release to the public of an incorrect diagnosis prior to confirmation by a reference laboratory, some 40 animals of various species were erroneously diagnosed as having rabies during a 1-month period. When subsequent testing was conducted at the CDC, all animal samples were negative. However, as a result of the initial alarm, thousands of pets unnecessarily received vaccinations against rabies and hundreds of dogs and cats euthanized. Some 80 people received post-exposure rabies prophylaxis; some had severe side effects from the regimen in use at that time. As a result, the DoH instituted a policy (adhered to in the case reported here) that requires CDC confirmation prior to release of the results to the general public.

Conclusion

The State rabies surveillance program, plus rapid response and reporting by cooperating agencies, prevented entry of the rabid bat into Hawaii. The alertness and cooperation by private agencies (Hawaiian Stevedores, Inc. and Sea Land Hawaii) were exemplary and reflected the effectiveness of the cooperative surveillance program. The continued effectiveness of this program will be enhanced by the support of the medical and veterinary communities, and by the awareness and support of the community.

Acknowledgements

Grateful acknowledgement is given to the following organizations and individuals for technical assistance and material support: The USPHS Centers For Disease Control Rabies Laboratory and Viral and Rickettsial Zoonoses

(Continued) ➤

Branch; Dr. Denny G. Constantine, retired public health veterinarian, California Department of Health Services; Wayne Okada, Sea Land Hawaii; Donald Kong, Wallace Tokuda, Curtis Matsusaki, Ernest Holler and Charles Coleman, Hawaii Stevedores, Inc.; Dr. Robert Worth, Communicable Disease Division of the DoH; George Komatsu, Norman Sato, Wesley Warashina, William Leong and Stanley Fuller of the Vector Control Branch, DoH; the DoA's Glenn Takahashi, Ronald Nakamura and Gerald Miyasato of the Plant Quarantine Branch; Aileen Hanaumi, Derek Arakaki and Lynn Sokogawa of the Inspection and Quarantine Branch; Dr. James Foppoli and Dr. Crane Hahn of the Veterinary Laboratory Branch; and Ronald Walker, Forestry and Wildlife Division, Hawaii Department of Land and Natural Resources.

REFERENCES

1. Willers EH: Hawaii's Rabies Quarantine system. *Proc. Natl. Rabies Sym.* Atlanta, GA, CDC, 1966:33

2. Velleca Wallis M, and Forrester, Francis T: Laboratory Methods for Detecting Rabies. Atlanta, GA, CDC, U.S. Department of Health and Human Services, 1981:69-91.

3. Tomich P. Quentin: Mammals in Hawaii, Second Edition. Honolulu, Bishop Museum Press, 1986:20-30.

4. Smith JS: Monoclonal Antibody Studies of Rabies in Insectivorous Bats of the United States. *Rev. Inf. Dis.* 1988:10(4):S637-S643.

5. Gould KL et.al: Suspected Rabies in Retrospect, Oahu, Hawaii. *Hawaii Medical Journal* 1969:28(4):277-278.

6. Frankel RI: Hawaii's Quarantine Regulations and the Epidemiology of Rabies. *Hawaii Medical Journal* 1978:37(1):16-18.

7. Sasaki DM and Gooch JM: Cost Effectiveness of Hawaii's Anti-Rabies Quarantine Program *Hawaii Medical Journal.* 1983:43(8):157-160.

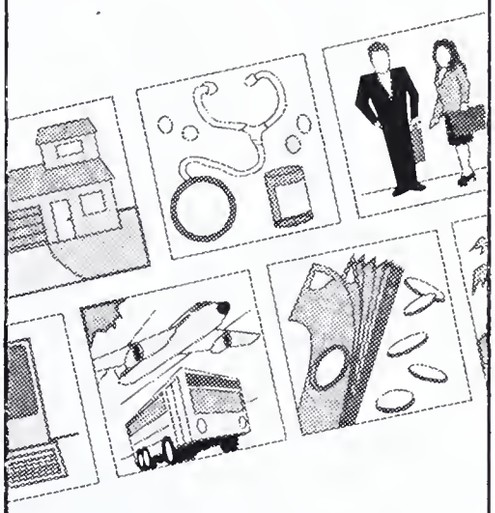
8. Fishbein DB, Corboy JM and Sasaki DM: Rabies Prevention in Hawaii. *Hawaii Medical Journal* 1990:49(3):98-101.

9. Centers For Disease Control: Personal Communication, Oral, 1991.

■

PUT PARADISE IN PERSPECTIVE

Get the full story of Hawaii's business in a tightly written compendium of its economy, cultures, achievements and challenges.



Volume Discounts

1-9 - $5.95 ea.
10-24 - $5.50 ea.
25-99 - $4.95 ea.
100-199 - $4.45 ea.
200+ - $3.95 ea.

Crossroads Press, Inc.
P.O. Box 833
Honolulu, HI 96808

Enclosed is $_____ for _____ copies of the 1992 Edition of ***All About Business in Hawaii*** at $_____ per copy.

❑ Optional U.S. 1st class postage ($1.95 per copy)
❑ Payment enclosed
❑ Visa ❑ Mastercard ❑ Discover Card

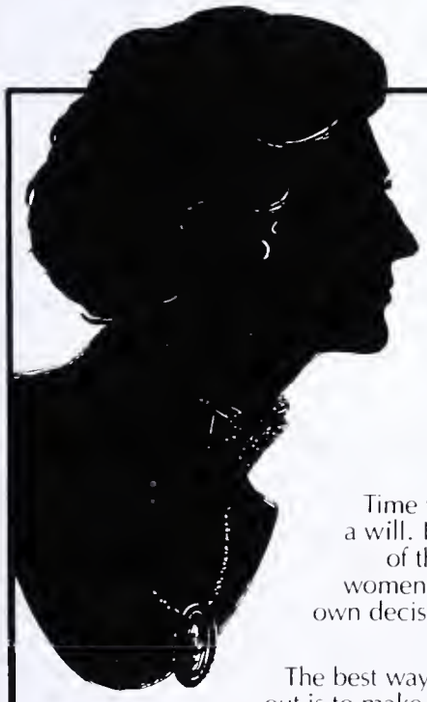
Card Number Exp. date

Signature (required for charge orders)

Name

Address

City State Zip



TODAY'S WOMAN HAS A WILL OF HER OWN

Time was when a woman didn't feel she needed to have a will. Her husband or father or some other male member of the family took care of such things. But today many women prefer to handle things themselves—to make their own decisions. They want to decide who gets the teaspoons, the stock, the real estate or the antiques.

The best way for you to be sure that your wishes will be carried out is to make a will of your own. And the first step is to see your attorney. After you have remembered those close to you, we ask you to remember the American Cancer Society. We promise to use anything you leave us carefully and prudently in research, in public and professional education and to improve the quality of life of cancer patients.

If you or your attorney want to know more about the Society and what we do, call your local ACS Unit or write to the American Cancer Society, 4 West 35th Street, New York, NY 10001.

AMERICAN CANCER SOCIETY®

Elimination of preventable blindness from diabetes by the year 2000

George Plechaty MD*
Ronald E. Smith MD**
Arnall Patz MD***

"Diabetes 2000" will parallel a major diabetic retinopathy public information campaign recently announced by the National Eye Institute. The NEI's National Eye Health Education Program (NEHEP), which targets both diabetic retinopathy and glaucoma, is fashioned along the lines of earlier federal initiatives against smoking and high blood pressure. By continuously updating our medical knowledge and skills related to this multisystem disorder, and by forging partnerships between physicians in the effective and efficient management of diabetic patients, we have a unique and important opportunity — we can reduce preventable blindness from diabetes by the year 2000.

In no field of medicine is continuing medical education of physicians more critical than in the management of diabetes. Twelve million Americans have diabetes mellitus, and the disease knows no medical specialty boundaries. In addition to being a major cause of morbidity from multisystem complications, such as renal failure, neuropathy, and cardiovascular disease; diabetes is the leading cause of blindness among working-age Americans. It accounts for at least 12% of new cases of blindness every year in the United States. Diabetic retinopathy is often asymptomatic at its most treatable stage, emphasizing the importance of early diagnosis of this retinal complication. New information about diabetes emerges almost monthly as published in some specialty journal, making it mandatory to find better ways to "keep up" with advances in this field—the stakes are simply too high to do otherwise.

In response to the increasing importance of the overall problem of diabetes and diabetic retinopathy, and the availability of improved treatment regimens defined by published clinical trial results, the American Academy of Ophthalmology (AAO) has embarked on a long-term education project designed to more rapidly translate research findings to medical benefits for the American public. The new project—"Elimination of Preventable Blindness from Diabetes by the Year 2000"—or "Diabetes 2000"—was announced at the AAO's 1989 Annual Meeting.

* George Plechaty MD
1990 President
Hawaii Ophthalmological Society

** Ronald E. Smith MD
AAO Secretary for Continuing Education
Diabetes 2000 National Project Director

*** Arnall Patz MD
Past President, AAO
Diabetes 200 National Chair

Submitted: October 22, 1990

Facts about diabetic retinopathy

The majority of diabetic patients have non-insulin-dependent diabetes mellitus (NIDDM, Type II). Usually diagnosed after age 40, Type II diabetic patients may or may not be treated with insulin. Much fewer patients have insulin-dependent diabetes mellitus (IDDM, Type I), which is usually diagnosed before age 30. Type I diabetics experience more frequent and severe ocular complications than do Type II diabetics. After 5 years, 23% of Type I diabetic patients have retinopathy; after 10 years, almost 60% have retinopathy; and after 15 years, 80% have it. Proliferative diabetic retinopathy (PDR)—the most threatening form of retinopathy—is present in 25% of Type I patients after 15 years and often remains asymptomatic well beyond the optimal stage for treatment.

An estimated 700,000 Americans have proliferative diabetic retinopathy and 500,000 have macular edema. The annual projected incidence of new cases of PDR and macular edema is 65,000 and 75,000, respectively. About 8,000 new cases of blindness a year in the United States are caused by complications of diabetes.

What can be done

"Diabetes 2000" provides the means to close the gap between advances in research and changes in treatment patterns. While most physicians are aware of diabetic retinopathy, the AAO's goal now is to focus attention on the importance of early diagnosis and timely treatment of diabetic retinopathy based on the important advances of the last 5 to 10 years. For example, we now know that timely laser photocoagulation surgery can reduce the risk of visual loss from proliferative diabetic retinopathy by at least 50%. We know that timely laser photocoagulation surgery of diabetic macular edema can reduce the risk of moderate visual loss by 50%. We know that vitrectomy surgery can restore useful vision to some diabetic patients who have advanced diabetic retinopathy.

(Continued on page 196) ➤

Listen to your heart.

Sandra called me on the way to work to remind me about our family dinner tonight.

Emily left a message on my AMS: 'I love you, Daddy.'

I called her back and said, 'I love you, too.'

Nothing feels better than keeping in touch.

Island-wide coverage. Personalized service. And more cellular options to meet your communication needs. At Honolulu Cellular, we know phones aren't just for business any more. Because some things are too important to lose touch with.

Discover the communication choice you can depend on.

Only at Honolulu Cellular.



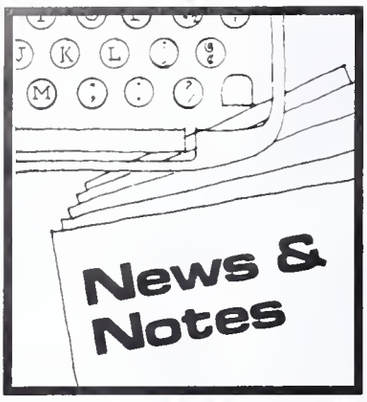
We feature state-of-the-art cellular phones by Motorola.



Honolulu Cellular

Hawaii's Cellular Leader

1161 Kapiolani Boulevard / 545-4765 • Grosvenor Center, 737 Bishop Street / 528-6161 • 98-1238 Kaahumanu Street, Suite 100 / 487-CELL



Henry N. Yokoyama MD

The Homeless Ill

Jon Martell, MD, medical director for the Kalihi-Palama Clinic, published a paper in the *Annals of Internal Medicine* describing a 2-year study about treating the homeless. Martell reports that between November 1988 and November 1990 the clinic saw 1,751 homeless ill. The general hospital admission rate was 5 times higher than that of the general population and the state hospital admission rate was 100 times higher. Martell concludes: "If we do nothing, we pay for it in hospitalization costs. If we take that money and redirect it in preventive measures, we can improve people's lives."

Quotables

"Mopeds should be banned. Their riders' centers of gravity become too high to make them safe to steer." (Dr. Peter Halford, QMC trauma services director, testifying for mandatory helmets at the Legislature.)

Re Konishiki, Hawaii's 550-pound sumo wrestler from Waimanalo: "Watching him is something like seeing an elephant in diapers doing a polka." (Mike Royko in "Windy City," *Honolulu Advertiser* April 29, 1992)

Life in These Parts

The Scare In Oahu Prisons:

When 2 ships carrying 150 illegal Chinese aliens were seized in February, the Immigration and Naturalization Service was faced with a problem. The first shipload of aliens was unfortunately not health-screened and was sent to Mainland facilities, but of the 51 arrested in the second shipload, 33 were screened: 15 tested positive to skin tests and 2 had positive chest x-rays. Fortunately none was contagious.

Research Grants:

Pacific Health Research Institute (a division of Straub Pacific Health Foundation) was awarded a $1.1 million grant from the national Institute of Aging to fund a study on "Falls & Fractures Among Elderly Japanese Americans". The investigation will be done in collaboration with the Hawaii Osteoporosis Center (Philip Ross, principal investigator; Richard Wasnick and James Davis, co-investigators.)

The American Heart Association, Hawaii Affiliate, will fund 9 grants and 2 fellowships for cardiovascular research. The projects amount to $292,830 locally and $260,000 nationally. Locally, David Jameson (at UH Medical School) will study "The Effects of Lipid Environment on Na, K ATPase Function"; Kenneth Nakamura (Tripler) is researching the "Role of Neonatal Diet on Vascular Responses in Normotensive and Hypertensive Rats"; and Mark Estacion (Cancer Research Center of Hawaii) is studying the "Modulation of Ion Channels on Aortic Smooth Muscle Cells Stimulated by Bradykinin."

Miscellany

An old geezer complained bitterly of pain, fullness and deafness in his right ear. His doctor examined him, removed something from the canal and exclaimed: "Why, this is a suppository!" The patient was relieved. "Thanks Doc! Now I know what happened to my hearing aid."

(Submitted by Bob Rigler who heard it from Steven MacBride)

Hors De Combat

The surgeon general and the AMA demanded that R.J. Reynolds Tobacco Company, a division of RJR Nabisco, get rid of its "Old Joe" cartoon because it appeals too much to kids. Surgeon General Antonia Novello quipped: "In years past, R.J. Reynolds would walk a mile for a Camel. Today it's time we invite 'Old Joe' himself to take a hike."

Hawaii's mandatory helmet law was repealed when a federal law requiring helmets was repealed in 1977. Presently 25 states have a mandatory helmet law and Hawaii is not one of them. At stake: $1 million in federal highway funds would be diverted to an educational fund if a helmet law's not enacted by 1993. The amount will be raised to $2.2 million if no law is passed by 1995. HMA president Steve Wallach warned: "For a few minutes of feeling free, you can spend a lifetime in a wheelchair." Doug Barr, co-star of the TV series *The Fall Guy* jested: "What do you call motorcycle riders who don't wear helmets?" "Organ donors." Peter Halford, QMC trauma services director testified: "Helmet legislation works. It saves lives, disabilities, and tragic outcomes."

Peter Halford, 47, Trauma Services director at QMC for 6 years, surfs and dirtbikes in his spare time. Peter has been lobbying for mandatory helmets for all motorcyclists. "Usually the worst thing a dirt biker who is wearing a helmet can do to himself is fall off into the kiawe." Peter did his first motorcycling on city streets in Manoa but hasn't been a street-biker since starting medical school. "I decided I didn't want to die young. In Hawaii, motorcyclists are almost twice as likely to die as they are in other states; and most motorcycle fatalities involve head injuries." (*Star Bulletin*, April 30, 1992)

Professional Moves

January:

Orthopod Suzanne Yandow joined West Hawaii Orthopedics (of John Bellatti and Barry Blum); Ob/gyn David McDonald joined the Kauai Medical Group.

February:

Ob/gyn Bunzo Nakagawa retired from practice in Wahiawa and Pearl City and his practice was assumed by Richard Oh.

March:

Pediatrician/internist Heajung Ruesing opened her office at 670 Ponohawai Street, Suite 217, Hilo; gastroenterologist James Grobe, Jr opened at Queen's POB II, Suite 102; general surgeon Gene Robinson opened at Pali Momi, Suite 140.

April:

Rehab physician Gary Okamoto opened his private practice at Queen's POB II, Suite 208 and Pali Momi, Suite 490. Internist Kenneth Zienkiewic joined the Hawaii Physician & Surgeons Association (of Philip Foti and Howard Keller) at the Kailua Professional Center.

Entrepreneurs

Thomas Lodi founded the Hawaii Medical Clinic 14 months ago in the Ala Moana Hotel, Kona Tower. The Clinic served more than 10,000 patients in 1991, with more than 70% of them visitors. It opened 24 hours a day, 7 days a week, and has a pharmacy, x-ray lab facilities and admitting privileges to major hospitals. The Clinic has opened a second Waikiki office in the Pacific Beach Hotel.

Newsmakers

Gerry Dericks Jr, Honolulu orthopod has pioneered a knee repair technique that recently took him to Mount Vernon, New York, to oversee his technique being used on Harlem Globetrotter referee, Timm Merrigan. Gerry is a sports medicine commentator on the nationally televised program "Bodies in Motion" and writes for newspapers and journals. He also lectures internationally on sports medicine...(*Hawaii Business,* February 1992)

Appointed, Elected and Honored

Neurosurgeon Juris Bergmanis was awarded the QMC semi-annual Ke Kauka Po'okela (The Outstanding Physician) award in February. Juris, 63, is described as "an extremely caring and compassionate physician with a great bedside manner and rapport with the patient's family; he is also an outstanding patient's advocate." Juris was born in Latvia, educated in Germany and graduated from U of N Carolina Medical School. He speaks 5 languages, enjoys music and the arts, and sings bass-baritone in the Lutheran Church choir. He came to Tripler in 1963 with the U.S. Marine Corps, joined the Honolulu Medical

(Continued) ➤

Group in 1966, and has been in private solo practice since 1986.

Re Physician Burnout: Some doctors begin to burn-out when they reach their 40s and 50s because of the long and unpredictable hours. I was reaching that point and I told myself: "If you are going to do something, you might as well enjoy it!" The thought was like a second wind.

Surgeon Clifford Chang was reelected chief of staff at St Francis Medical Center-West. Internist La Verne Kia was elected VP; ER physician Joseph Lewis was elected secretary and internist Jonny Rebudal, treasurer.

The American College of Surgeons, Hawaii Chapter, elected Kent Davenport president, John Edwards governor, Bradley Wong Secretary, Gabriel Ma and Gilbert Yamamoto are councilors, and Robert Oishi and Scott Hundahl cancer committee members.

In Memoriam of a sportsman...

Sportsman Gernot Spallek, 49, was "a man who lived life to the hilt," according to Kalani Brady, who was Gernot's partner at the Royal Hawaiian Hotel for the past 7 years. He eulogizes Gernot as "an excellent physician who exemplified the old time ideal of having true compassion for his patients...He was a diving enthusiast, a sailing enthusiast, and an Ironman triathelete 3 times. He was in incredible shape. He ran every Honolulu marathon and finished last year with a time of 3:38. He was an athlete in every sport." Gernot Spallek was overdue on a solo diving trip on April 8...His body was found 9 miles from his 27-foot fiberglass boat anchored 10 miles southeast of Koko Head, near Penguin Banks.

Obituaries in brief

Robert Ballard, 70, of Honolulu, who practiced for 40 years, died in November...Takushi Hayashi, 57, internationally acclaimed KMC pathologist, died on March 10...George Hi'ilani Mills, 70, former State senator and leader in medical and Hawaiian communities died February 11...

Oncology Dialogue I

A 70-yr-old woman, with a negative mammogram less than a year before, discovered a breast lump on self-examination...The patient had a lumpectomy and axillary node dissection was performed...Pathologist Larry McCarthy described a 2½-cm tumor mass with one positive node...Both ER and PR were positive...Oncologist Jonathan Cho started the ball rolling: "She should be on monotherapy, eg Tamoxifen..." Radiotherapist Lois Mastro added: "She definitely needs radiation." Moderator Ken Sumida turned to chemotherapist Mel Inamasu: "What is the timing of radiation and chemo?" Mel: "Theoretically it should be systemic therapy first." Jonathan agreed: "I'm for chemo first." Ken: "How about size limits for surgical excision?" Jonathan: "Depends on the relative size of breast to tumor." Ken: "For cosmetic purposes, the limiting size used to be 4 cm, but now it is 5 cm..." Mel Inamasu argued for the Cancer Research Center's prevention protocol with Tamoxifen: "Three of her 5 sisters have had breast Ca, so this patient is at high-risk for recurrent breast cancer...The adjutant Tamoxifen studies have shown that it can be given as a preventive measure..." Someone from Cancer Research Center reported that risk formats can be obtained by calling the Center. "Women over 60 are potentially eligible for Tamoxifen prophylaxis." Mel added. "Tamoxifen can also prevent cardiac deaths." Pathologist Grant Stemmerman

(Continued) ➤



CREATE A MEDICAL BREAKTHROUGH.

Become an Air Force physician and find the career breakthrough you've been looking for.

- No office overhead
- Dedicated, professional staff
- Quality lifestyle and benefits
- 30 days vacation with pay per year

Today's Air Force provides medical breakthroughs. Find out how to qualify as a physician or physician specialist. Call

USAF HEALTH PROFESSIONALS
TOLL FREE
1-800-423-USAF

AIR FORCE

The General Contractor Who Speaks Interior Design.



Audrey Tanaka ASID Karen Nakamura CGR

Our unique team combines the know-how of a professional general contractor with the sensitivity of an interior designer. We do it all. From specific assignments such as kitchen or bathroom remodeling to room additions and complete interior or exterior design and construction.

We don't just remodel, either. We can take over – where the builder left off – to create a customized environment that fits your lifestyle. We also can work directly with you or your architect. And before we speak, we listen.

Showroom hours 10 to 5. Saturdays 9 to 4. License Number BC-5555.

REMODELING SPECIALISTS Hawaii

The General Contractor Who Speaks Interior Design. Call 735-9844. Fax 734-8351

3160 Waialae Avenue Honolulu, Hawaii 96816 Division of Wallpaper Hawaii, Ltd

THERE IS SOMETHING YOU CAN DO ABOUT AIDS



Life Foundation

The A.I.D.S. Foundation of Hawaii

924-AIDS

Aloha United Way
It brings out the best in all of us.

Enclosed is my tax deductible donation to help The AIDS Foundation of Hawaii

Name _____

Address _____

_____ **Donation $**_____

MAIL TO: LIFE FOUNDATION
P.O. Box 88980, Honolulu, HI 96830-8980

NEWS & NOTES

(Continued from page 189)

argued against the indiscriminate use of Tamoxifen prophylaxis: "The original studies were very controversial...Some doctors now want to put all their patients on Tamoxifen...the study had two deaths from phlebothrombosis, and there is the danger of tumor recurrence with inadequate doses and the danger of hepatic disease and lymphocytic malignancies...Should pregnancy occur, the child is also subject to these same risks...People should not feel they are being deprived if denied the drug..."

Oncology Dialogue II

A 37-yr-old single premenopausal woman found a Rt breast lump...She had had a negative mammogram 7 or 8 years before. Her family history was very strong for breast Ca; viz a maternal grandmother, mother and aunt all had surgery and were alive...Radiologist Dave Sakuda discussed her mammograms. In her Rt breast, she had a 2-cm^2 density at 12 o'clock and a 1-cm^2 nodule at 8 o'clock. In her Lt breast, she had 3 additional nodules. The surgeon did a fine-needle biopsy of the Rt breast mass which was reported as infiltrating ductal Ca...The surgeon recommended a modified radical, but the patient opted for a lumpectomy and axillary node dissection. The mass was a 2½ x 3 cm ductal Ca (with 3 multicentric intraductal lesions) and one axillary node positive out of 22.

Moderator Ken Sumida questioned Lois Mastro, the radiotherapist: "What is your feeling about breast conservation surgery?" Lois: "With her extensive fibroadenomas, it would be impossible to follow her with mammograms..." Ken: "Dr Stemmerman, what is her risk for Ca of the Lt breast?" Stemmy: "The risk is 100%. She should have been urged to have a bilateral mastectomy. By next month, we should be ready for nipple-aspirate cytology. Someone is coming down to show us the technique," he added. It was then that radiotherapist Ed Quinlan spoke his mind: "This is an example of counseling failure because she was counseled by a surgeon who is a male...She really needed someone like Lois to advise her..."

Conference Notes...

New Concepts in the Diagnosis and Treatment of Lung Cancer, Mabel Smyth, December 21, 1990 presentation by Dr Jonathan Cho, Assistant Clinical Professor of Medicine, UH Med School:

Incidence: Lung Ca was the leading cause of cancer deaths in 1991. Seventy percent of lung cancers are first diagnosed with mets to regional nodes. Cell markers determine the prognosis in lung Ca. An autosomal gene may determine the susceptibility to lung Ca in the general population, especially under age 50...

Classification: Lung Ca is divided into small cell and non-small cell Ca...The non-small cell types are squamous cell Ca,

(Continued) ➤

Adeno Ca and large cell Ca...Treatment and prognosis differ according to type. Most lung Cas are of the non-small cell type. Adeno Ca is most prevalent today, while squamous cell Ca was more common 30 years ago.

Re Screening for lung Ca: Early detection by screening is possible but does not decrease mortality. Screening may be improved with a tumor antigen stained by monoclonal antibody.

Staging Systems: Small cell Ca is either limited disease or extensive disease. Non-small cell Ca: The TNM system categorizes it as resectable, regional unresectable, or metastatic disease.

Treatment depends on cell type...Combined chemo and radiation have the most favorable outcome. Treatment with monoclonal antibody may be possible in the future...

Summary of presentation by Omar Kucuk, Professor of Medicine:

The major causes of lung Ca are tobacco, diet carcinogens and genetic factors...

Epidemiologic studies show that a high fat diet has a high risk for lung Ca, a high cholesterol diet and a 40-pack-year smoking history significantly increase the risk for lung Ca...(the oxidized cholesterol in the diet may be a factor) and a diet high in Vitamin A (beta carotene) may be protective. Retinoid acid is not a good agent for chemoprevention of lung Ca because of its side effects...

Portrait of a humble Genius

On the flowered altar was a life-size color photograph of Takuji Hayashi — bespectacled, intelligent, kindly eyes, greying temples, chin resting on clenched fist in a befitting "The Thinker" pose...Friends and colleagues attended in disbelief at the premature death of a most remarkable man...The presiding Shingonshu priest intoned: "We moan the loss of a humble but great man...Life is change and nothing is permanent...Dr Hayashi has simply left this life to the next station of life and death..."

Grant Stemmerman (mentor and close friend for 30 years) despaired: "This is a particularly sad moment...Takuji was a person who combined high intelligence with great demands on himself...He studied ultrastructural pathology and participated in most of our research projects at the Honolulu Heart Study and the Japan-American Cancer Study...He was first my student, then my colleague and in the end, my teacher..."

Fellow pathologist Eugene Yanagihara spoke teary eyed: "Takuji was my mentor and special friend...He was unassuming, soft-spoken and candid...He always impressed me with his knowledge...He encouraged me to read and learn something everyday and practiced what he preached...He did not have a photographic memory as everyone assumes: He studied constantly...He was a pathologist with no equal...He also had diverse interests, espe-

(Continued) ➤

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

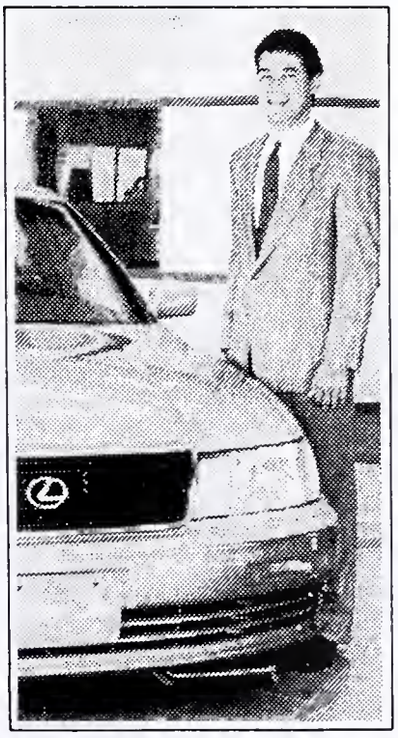
Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

Special Consideration Given To HMA Members.



Meet Brian Hideo Walker, a member of the Exeeutive Sales Team at Lexus of Hawaii. Sineere, soft spoken and knowledgeable, he'll be more than happy to assist you with your automobile needs.

Visit Lexus of Hawaii, your only authorized Lexus dealer, and see our eomplete line of automobiles at 744 Ala Moana Boulevard. Or eall 54-LEXUS (545-3987) for more information and a complimentary brochure.

LEXUS
The Relentless Pursuit Of Perfection.

Lexus of Hawaii—A Division of Servco Pacific Inc.

Objective Physical Testing

for workers' comp and personal injury cases



Concerned about your patient's physical abilities and setting realistic work limitations? Tired of those pesky release for work forms?

Consider CHART's Work Capacity Testing. Evaluations provide objective data that helps you to determine return to work readiness and set realistic physical limitations.

Call today for more information to help you save time, be more accurate and objective, and get your patients back to work safely.

Outpatient physical rehabilitation and testing for chronic musculoskeletal injuries.

CHART®
Comprehensive Health and Active Rehabilitation Training

1505 Dillingham Blvd. #110
Honolulu, HI 96817
Phone: 841-6006

94-810 Moloalo Street
Waipahu, HI 96797
Phone: 671-1711

TRUITT AFRICA



LEE TRUITT OFFERS THE GREATEST PHOTOGRAPHIC SAFARIS TO AFRICA.
CALL FOR FREE MONTHLY SLIDE PRESENTATION, SCHEDULE, OR PERSONAL SHOWING.
THE ULTIMATE EXPERIENCE. CALL LEE AT PACIFIC-AFRICAN CONNECTION, 524-5453.

NEWS & NOTES

(Continued from page 191)

cially in math and computer technology...He was a caring man—a kind, generous and giving person who loved company and enjoyed telling jokes..."

Professor Kobayashi from Kochi Medical School had flown in from Japan to represent Takuji's many friends and students from Kochi, Kagawa and Okayama medical schools..."Twelve years ago, I was first exposed to Dr Hayashi's intelligence, humor and teachings, and later I had the opportunity to spend 14 months learning from him...He was a walking encyclopedia with ready references on every specialty...SAYONARA..."

Daughter Bertha shared her memories..."We cherished his sense of humor...He was a scholar, and he was always working on his computer which was like his fourth child...Whenever anything went wrong, he would comfort us with "It's OK...It will be all right..."

Pastor Raymond Nishigaya was rather enigmatic: "Dr Hayashi's death makes no sense...So we must have faith...Only with faith, can we have all the answers..."

Eulogy of a great teacher

Dr. Takuji Hayashi was born in Niimi, Okayama Prefecture, Japan on September 15, 1934. He received his medical education at the Okayama University Medical School, graduating in 1959. He interned at Kuakini Medical Center from 1959 to 1961, followed by a pathology residence at Kuakini and The Queen's Hospital from 1961 to 1964. He received an MSc (medicine) degree from Queen's University, Kingston, Ontario, Canada where he was a research fellow in neuropathology.

He returned to Kuakini Medical Center as a staff pathologist in 1966, where he remained until his death. He was also the pathology consultant to Tripler Army Medical Center and Associate Professor of pathology at the University of Hawaii. His weekly seminars in kidney disease and ultrastructural pathology at Tripler were deeply appreciated by the pathology and nephrology staffs. He achieved international recognition for his research in heart disease and cancer of the gastrointestinal tract. He played a vital role in developing and standardizing pathology methods for the Honolulu Heart Study, a program sponsored by the National Institute of Health. His research in gastric and colorectal cancer earned him an invitation to the prestigious Princess Takamatsu Meeting held in Tokyo in 1977 where he was honored for his contributions to understanding cell turnover in normal and neoplastic colorectal mucosa. He will be remembered as an outstanding teacher, as an unfailing source of medical information and for his quiet sense of humor. His passing leaves a void that will be felt throughout the medical community in Hawaii, but especially at the Kuakini and Tripler Medical Centers.

Eugene Yanagihara

Maka O Ke Kauka

Russell T. Stodd MD

Statistics are the heart of democracy.

• Interesting statistic about Roe vs Wade—The AMA Council on Scientific Affairs reports that in 1940 in the United States 1,400 women died as a consequence of illegal abortions. In 1985, six women died from complications of legal abortions.

• Interesting statistic about same day surgery—In 1980 only 16% of surgeries were performed as outpatient procedures and 84% required hospitalization. In 1990, 51% of surgeries were done on the same day, and the figure is growing by 7% per year, establishing outpatient dominance which surely will prevail and expand through the rest of this century.

No one can build security on the nobleness of government.

Those of us with hoary heads recall the days when medical "price fixing" by way of a relative value schedule was considered a criminal conspiracy on the part of organized medicine. The California RVS was used in certain locales to establish usual and customary, but the threat was ever present that the FTC would come thundering in on their white horses to punish such "evil" doctors. Now, as you know, the Health Care Financing Administration has omnisciently constructed and nailed in place its own Medicare reimbursement schedule, and we are forced by mandate to deal with the other end of the horse. Once again, that which was a crime for the individual has become a holy manifesto for the government. And this final bit of frosting—West Virginia lawmakers are considering a proposal to require doctors to accept as payment in full whatever each patient's insurer will pay.

I can live for two months on a good compliment.

Despite all the government and media doctor bashing, it appears the public has more insight than anticipated. According to a study from Pulse Surveys of America, more than one third of working Americans expect high medical bills to trigger a financial crisis in their families over the next 5 years. However, only 9% blame physicians for the rapidly rising medical costs. Instead, 24% blame trial lawyers and medical malpractice suits, 21% focus on excessive hospital charges, and 11% on insurance company profits.

The easiest way to make money is to stop losing it.

If by hard work and frugality you have accumulated some money to invest for your golden years, the following stocks will throw off the best returns over the next years: Boeing, Bristol-Myers, Eli Lilly, Glaxo, Merck, Philip Morris and Wal-Mart. These recommendations come from Rivel Research Group, which polled 200 money managers. However, if your experience with a money manager is much like mine, that is not a ringing endorsement.

Let it all hang out, ma'am.

What is next—photographs of hernias, hemorrhoids, harelips? With the abiding, inane, groundless fixation on medical fraud, the Alabama Medicaid agency and many private insurers require snapshots of women's breasts before approving breast reduction surgery. The requirement of photos prior to non-cosmetic blepharoplasty is an insulting and degrading practice which ophthalmologists and plastic surgeons in Hawaii have been obliged to endure on behalf of their patients. To permit a clerk at some desk to overrule a medical judgment for reimbursement on the basis of a capricious look at snapshots is not just a discourtesy, a slap, and an affront; it is simply wrong. Doctor's objections have no effect. Only when the abused public gets angry enough will these pettifogging exercises be terminated.

If at first you don't succeed, transform your data set.

Probably as a result of the blizzard of paperwork that descended on the National Practitioners Data Bank, the government is studying the possibility of discontinuing the need to report "nuisance settlements" of malpractice claims. The AMA has repeatedly suggested a minimum figure of $30,000 as the reporting floor, but the Physician Insurers Association of America is urging that payouts under $50,000 would not have to be reported.

They serve God well who serve his creatures.

For reasons that medical educators cannot explain, applications for medical school are on the increase. The nadir was reached in 1986 when the applicant-acceptance ratio was 1.6. Currently the figure has returned to the 1980 level of 2.1 and the trend is up, fueled by more female and minority applicants. Theories are that a medical degree is considered recession-proof and that medicine is identified with public service, supposedly the antithesis of the me-first Reagan years. Perhaps it is an antecedent reaction to the indecent number of lawyers annually spewing forth to nurse from the bosom of the American economy.

Sin writes histories; Goodness is Silent.

Strike two. Generic drugmaker Superpharm Corp. has been fined $1-million after pleading guilty to 4 counts of shipping unapproved and adulterated medication. The words in Hawaii are "Do not substitute."

Addenda.

— Philip von Walther (19th century) believed that cataracts were an inflammatory condition and coined the term "phakitis." It never caught on.

Aloha, and keep the faith

rts

■

ODE TO A PHARMACIST

"Mr. Pharmacist, please have pity on my soul,

And help me live to find my goal.

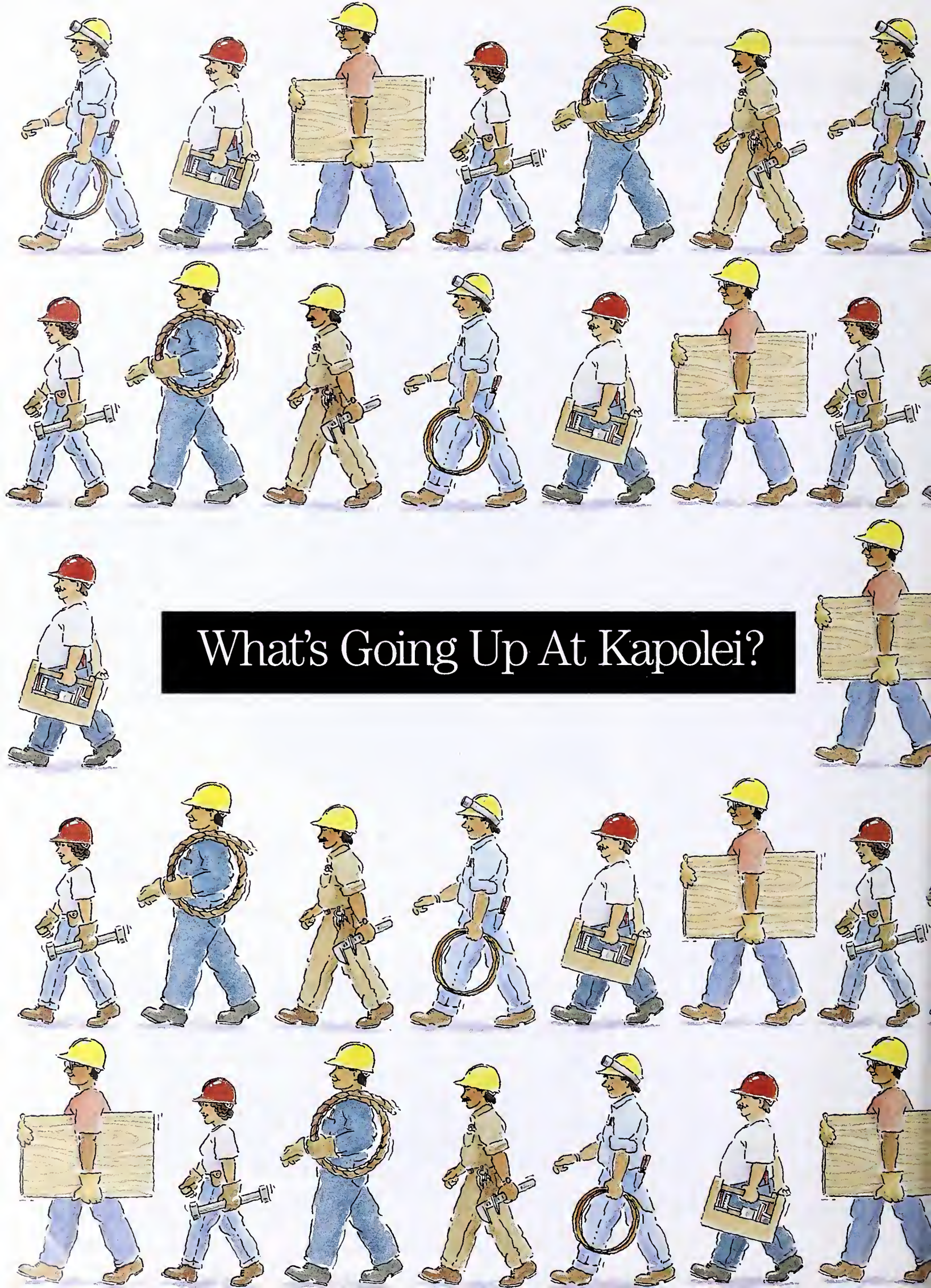
Don't give me pills just to see and hold;

I need to take them before I get too old.

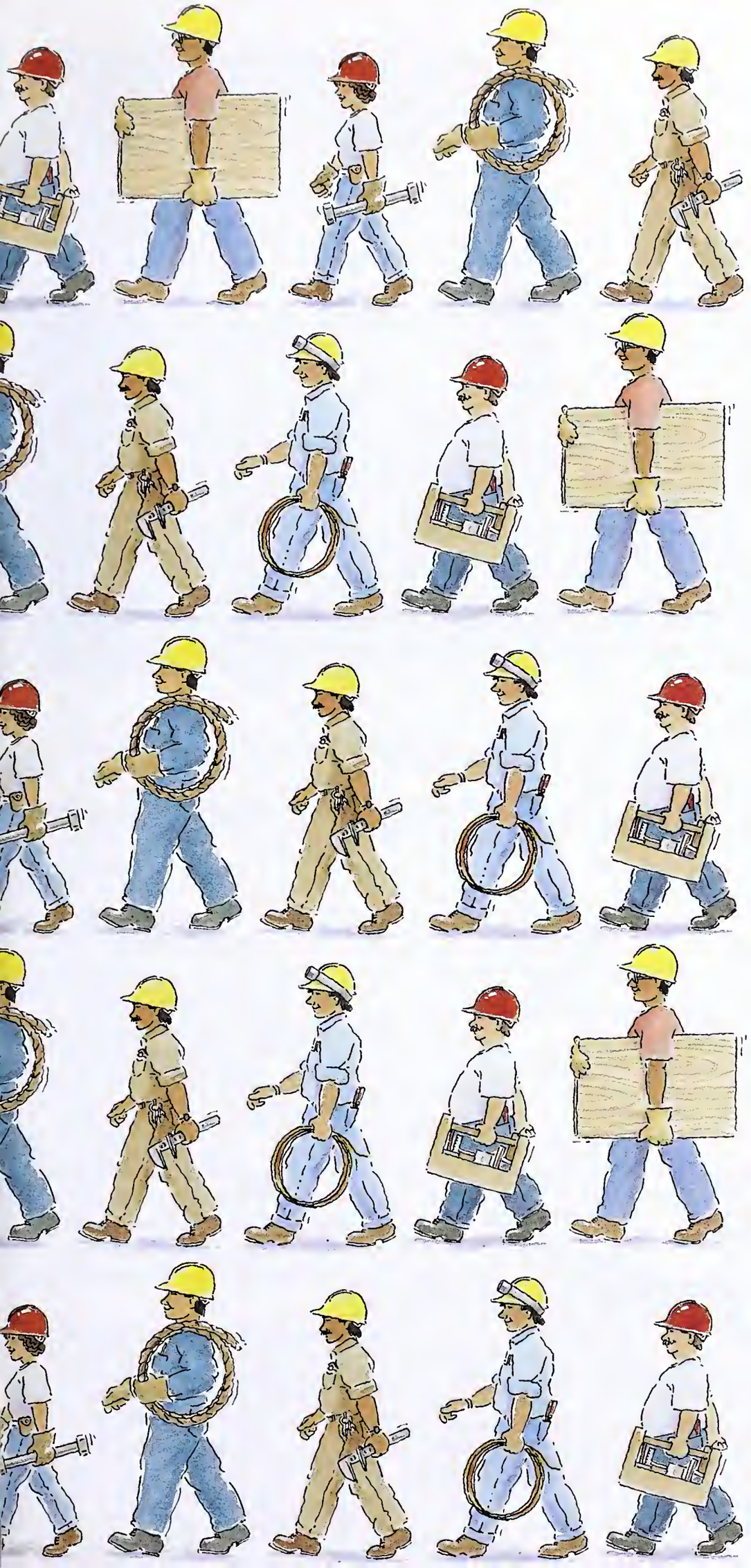
You know and I know they're not for a kid.

All I want to know is how to lift the lid.

-Anonymous



What's Going Up At Kapolei?



The City of Kapolei's first major office complex is now getting off the ground.

Construction is well under way on Campbell Square. The twin-building project will occupy the first block of Oahu's next city. And its kama'aina architectural style and "smart" technology will set the standard for future office buildings in Kapolei.

Campbell Estate is moving its headquarters here in the spring of 1993. Other tenants, including prominent financial, insurance, real estate and retail firms, are now finalizing leases.

And that's just the beginning. Several more office projects are in the works. Along with hundreds of homes nearby. And Kapolei Shopping Center (28 tenants and counting) is nearing completion — with Safeway opening by the end of the year.

The employment opportunities being created are equally impressive. All total, 30,000 people are projected to be working in the Kapolei area by 2010.

Business is moving in a whole new direction. Call 544-3275 and get in on the ground floor.

The City of Kapolei
A New Direction

A development of The Estate of James Campbell

The need for effective partnerships

As the working title implies, "Diabetes 2000" will be a long-term project aimed at a specific disease: Diabetic retinopathy and its complications. Several phases are anticipated.

Providing the latest research findings to ophthalmologists and other physicians who care for those patients is the first priority, followed by patient and public information. Initially, new advances and treatment guidelines for the medical and surgical treatment of diabetic eye disease will be emphasized through continuing education of ophthalmologists, other physicians, allied health professionals, residents, medical students and specialists in diabetes-related education.

In later phases, educational programs for diabetic patients and the public will be developed. Ultimately, improved eye care of diabetic patients is to be expected as a result of closer collaboration between the physician primarily responsible for the care of the patient's systemic illness, the patient and the ophthalmologist. Since diabetic patients can be asymptomatic despite significant progression of diabetic retinopathy, the importance of a renewed and improved partnership between the ophthalmologist and the patient's primary physician is critical.

Because of the ambitious goal and long time frame, many other medical organizations and public groups are involved in Diabetes 2000. Representatives from various medical specialties, government agencies, and other organizations devoted to problems of the diabetic patient have been invited to participate. Since diabetes is a complex, multisystem disease whose overall management is the responsibility of physicians other than ophthalmologists, "Diabetes 2000" will stress involvement of other physicians and medical specialty organizations in planning and implementing the project.

The importance of finding ways to develop effective partnerships between the patient's primary physician, the ophthalmologist and the patient in the management of diabetic eye disease is a major goal. Another important aspect of the project is the identification and promotion of existing diabetes eye health programs around the country, such as the Centers for Disease Control (CDC) Diabetes Translation Project. The AAO will encourage ophthalmologists to participate in national, regional and local programs already in operation, as sponsored by such organizations as the American Diabetes Association, the Juvenile Diabetes Foundation, Lions Clubs, and others.

And in Hawaii

Hawaii ophthalmologists are participating. Educational materials are being developed and demonstration projects are underway in some states to encourage ophthalmologists and other physicians to participate in continuing education programs concerned with the overall management of diabetic retinopathy. A Preferred Practice Pattern on diabetic retinopathy is available through the offices of the American Academy of Ophthalmology (415-561-8500). This document provides the latest information concerning the management of diabetic retinopathy. The Hawaii Ophthalmological Society is actively involved in this national initiative and ophthalmologists in Hawaii are eager to help develop the necessary educational and service programs that will achieve this goal.

1. Kupfer, C: The challenge of transferring research results into patient care. *Ophthalmology* 96:737-738, 1989.

2. Preferred Practice Pattern: Diabetic Retinopathy, American Academy of Ophthalmology, 1989.

■

CLASSIFIED NOTICES

To place a Classifed Notice: MEMBERS, please submit copy to HMA, 1360 S. Beretania St, 2nd Flr, Honolulu HI 96814 or Fax 528-2376. NONMEMBERS, please call Leilani at 521-0021. Four line min, approx 5 words per line. Payment must accompany order.

EMPLOYMENT OPPORTUNITY

POSITIONS AVAILABLE

Physician Placement Hawaii has openings for physicians & other medical professionals all across the U.S. Mainland as well as here in Hawaii. We also have candidates interested in a Hawaii position. Call Earl Pajari at 395-7099.

OFFICES

WILL CONSIDER ALL OFFERS

AINA HAINA PROFESSIONAL BUILDING

1,064 sf turnkey previous medical ofc. & 837 sf ofc. space available. Lots of parking.

GREAT LOCATION

Carolyn Schnack Darrow (RA) 373-964

OFFICES

MAUI

MAUI CLINIC BUILDING

* 728 Sq. Ft. Office
* X-Ray and Lab on Site
* Renovation Allowances
* Rental Allowance during Renovation
* Ample Parking
* 14 other Quality Medical Tenants in Bldg.

OPM Call John Sullivan

OIHANA PROPERTY MANAGEMENT 244-7684

REAL ESTATE

MANOA

Best street. 4 bd., 3 ba. Divorce forces sale. Gaylyn Li-Ma 530-1266 (pager) 946-0646

RENTALS

WAIMANALO, OAHU

BEACHFRONT

Beautiful beach home on magnificent white sand beach. Sleeps 8, $1500/week, Barbara, 733 Bishop, Ste.1800, HNL, HI 96813; 808-531-1411

SERVICES

WANT TO SAVE MONEY, TIME & HEADACHES? Let MEDPRO show you how!

We come with 10 years of experience in filing all types of medical claims. For a free consultation, please call 681-4434 and ask for Claudia Tateishi.

LOCUM TENENS PROVIDED

Internal Medicine and Family Practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS AVAILABLE

Family Practice, Pediatrics, Urgent Care.

No agency fees. Deal direct. 923-2981.

BUSINESS OPPORTUNITIES

Established General Practice for sale. Waipahu. Equipment available.

Terms negotiable.

Phone 671-3931



Praxis gives Dr. Lee independence

Dr. Lee has time for himself now that he uses *Praxis!*

Praxis:

- **Files insurance claims**
- **Generates patient statements**
- **Receives, posts, tracks and deposits payments**
- **And handles all patient inquires**

All Dr. Lee has to do is enter the patient information in his OS/2 computer system*, and let *Praxis* take care of the rest!

Praxis offers the administrative services of a large clinic or hospital to physicians who prefer their autonomy, and gives them more time for their professional and personal lives. For more information, contact us at 941-3363.

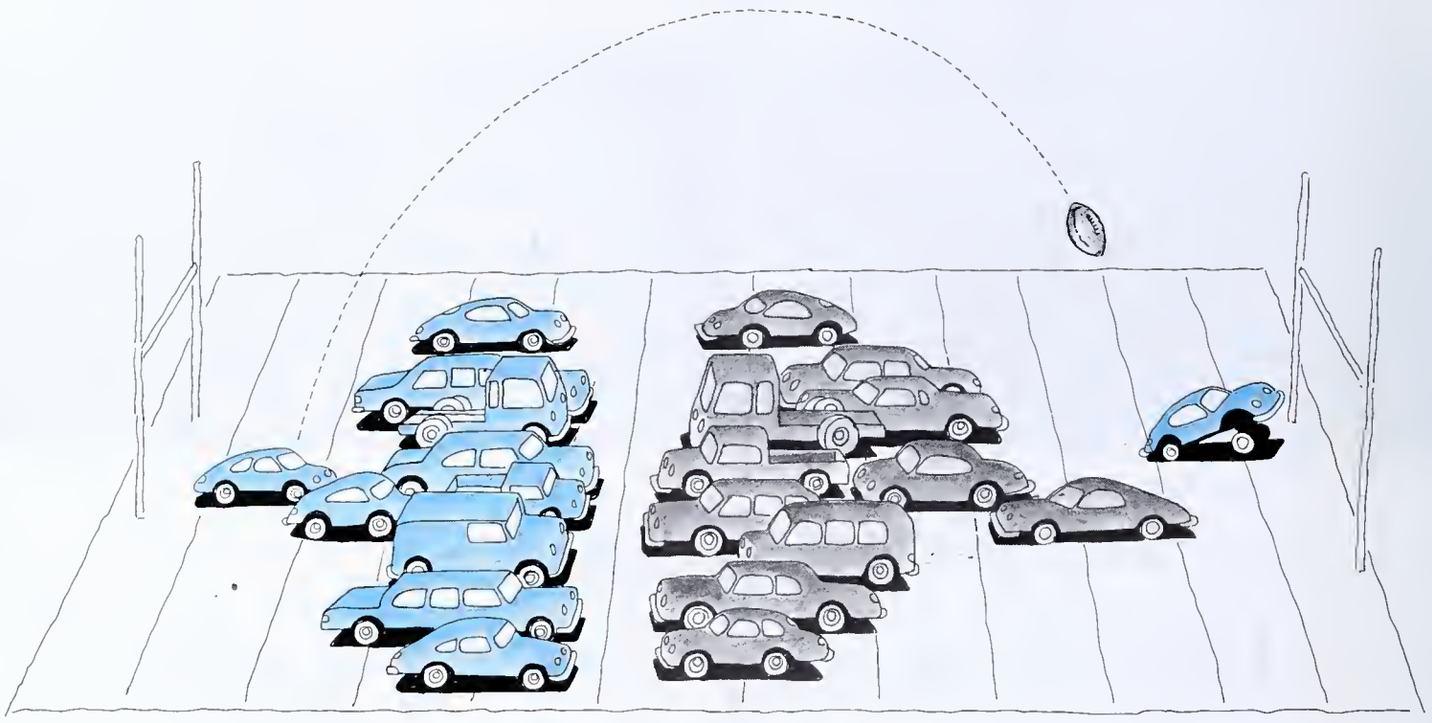




Praxis

HAWAII'S BILLING SERVICES FOR PHYSICIANS IN PRIVATE PRACTICE

Praxis℠ is a wholly-owned subsidiary of DataHouse, Ala Moana Building, Suite 1500, 1441 Kapiolani Boulevard, Honolulu, Hawaii 96814 — *Praxis requires the use of an IBM-PS/2 computer in an OS/2 computing environment — IBM, PS/2 and OS/2 are registered trademarks of International Business Machines Corporation



Leasing cars for business is a whole new ball game.

First Hawaiian Leasing announces FirstLease — a product designed expressly for business and professional people who drive their vehicles 50% or more for business use.

Advantages of FirstLease include:

- Monthly payments are typically 25% to 35% lower than conventional financing and remain the same throughout your lease.
- You select the vehicle and dealer of your choice.
- You can benefit from certain tax savings.
- There's no down payment. In effect, FirstLease gives you 100% financing.

FirstLease is a convenient and economical way of financing your new car, truck or fleet. To get the ball rolling, call the FirstLease Team at 525-7035.

The FirstLease

FIRST HAWAIIAN LEASING, INC.

A financial services company of First Hawaiian, Inc.

Hawaii Medical Journal
UCSF LIBRARY
Received on: 09-30-92

Journals
W1
HA
968

AUGUST 1992
Vol. 51, No. 8
ISSN: 0017-8594

HAWAII MEDICAL JOURNAL

CONTENTS

HMA COUNCIL HIGHLIGHTS 202

EDITORIALS 204
An Alternative
J I Frederick Reppun MD

LETTERS TO THE EDITOR 204
Robert V Hollison Jr MD

A TESTIMONIAL TO OPHTHALMOLOGY IN THE 1980S 205
Ed Sheehan

ACUTE RHEUMATIC FEVER IN HAWAII: 1966 TO 1988 206
L T Chun MD
D Venu Reddy MD MPH
Gregory K Yim MD
Loren G Yamamoto MD MPH

HEALTH MATTERS: SOCIAL, ECONOMICAL AND PHILOSOPHICAL ASPECTS OF HEALTH CARE 212
David J Elpern MD

SPECIAL FROM THE AMA 214

CARDIOPULMONARY EXERCISE: A RECENTLY DISCOVERED SECRET OF TAI CHI 216
Rock K T Ng BS

POEM: "TEARS OF JOY" 217
Robert S Flowers MD

NEWS AND NOTES 218
Henry N Yokoyama MD

TUBERCULOSIS: A PERSONAL COMMENTARY 222
Gladys C Fryer MD

MAKA O KE KAUKA 224
Russell T Stodd MD

U OF CALIFORNIA-SF
LIBRARY
SERIALS DEPT, BOX 0840
530 PARNASSUS AVE
SAN FRAN, CA 94143-0840

HAWAII MEDICAL ASSOCIATION 1856

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively
Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

Hawaii Medical Journal

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor J I FREDERICK REPPUN MD
Founding Editor: HARRY L ARNOLD JR MD
News Editor HENRY N YOKOYAMA MD
Contributing Editors: STEPHEN R P K BRADY MD, FRANCIS H FUKUNAGA MD
Editorial Assistant: SUSANNE WEEKS
Publisher: STEPHEN LENT

Editorial Board
NORMAN GOLDSTEIN MD
ROBERT T S JIM MD
JAMES LUMENG MD
FRANCIS D PIEN MD

Publications Committee: MYRON E SHIRASU MD (Commissioner)
HENRY N YOKOYAMA MD (Chair)
ERLAINE BELLO MD, STEPHEN R P K BRADY MD, NADINE BRUCE MD, NATHANIEL PH CHING MD, OSAMU FUKUYAMA MD, ROBERT C GALAGAN MD, FRED GILBERT JR MD, ROBERT HOLLISON MD, AMOD JAIN MD, ROBERT T S JIM MD, JOHN H C KIM MD, H LORRIN LAU MD, JAMES LUMENG MD, BAL RAJ MEHTA MD, FRANCIS PIEN MD, J I FREDERICK REPPUN MD, MYRON E SHIRASU MD, KIM THORBURN MD, RONALD J WONG MD, TERRY C Y WONG MD, GUY N YATSUSHIRO, STEPHEN J WALLACH MD

OFFICERS
President: STEPHEN J WALLACH MD
President-Elect: JEANETTE H J CHANG MD
Past President: JOHN T MCDONNELL MD
Secretary: ANDREW DON MD
Treasurer: JOHN S SPANGLER MD

County Presidents
Hawaii: RICHARD K M LEE-CHING MD
Honolulu: PAUL A DeMARE MD
Kauai: LARRY MAGNUSSEN MD
Maui: LEONARD H SAKAI MD
West Hawaii: MINOLU R CHENG MD

Delegates to AMA
CALVIN CM KAM MD
RUSSELL T STODD MD

Alternate Delegates to AMA
STEPHEN J WALLACH MD
JOHN T MCDONNELL MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or adver tisements The advenising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association The right is reserved to reject material submitted for editorial or advertisiog columns The HAWAII MEDICAL JOURNAL (USPS 237640) is publisbed monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Non-member subscriptions are $18. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL. 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Pnnted in U S A

Rx Considerations:

- ❑ Personality and domestic conditions are significant obstacles to recovery.
- ❑ Patient has poor posture and movement skills.
- ❑ Secondary gain from pain (money, sympathy) is more important than healthy choices.



BACKWORKS HAWAII Inc

Active, Progressive Physical/Occupational Therapy

Gentle, but firm support for your patients since 1988

945 Kamehameha Hwy • Pearl City, Hawaii 96782

456-7077

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

HMA Council Highlights For the Council Meeting of July 10, 1992

The HMA Council met on 10 July 1992. The highlights of its action follow. Those present were: S Wallach, J Chang, A Don, J McDonnell, J Spangler, C Kam, F Holschuh, L Howard, L Sakai, P DeMare, R Embry, H K W Chinn, H H Chun, H Fong, R Kimura, M Shirasu, C Kadooka, R Goodale, J Betwee, H Percy, T Smith, G Goto, J Lumeng, W W Y Chang, W W L Dang, N Winn, J Armstrong-resident physician rep, and W M Dang-young phys rep. Also present were: Guests—G Yamashiro-Manager, Aetna Medicare, and B Fong-Medical Director, Aetna Medicare; G Fu-President-HMA Auxilary, and V Woo-Legal Counsel. HMA staff present were: J Won, N Jones, B Kendro, J Asato, L Tong, P Kawamoto, J Estioko, R Tokuda, and M Lindsey-recording secretary.

Aetna Medicare's Gladys Yamashiro, the Manager of Aetna Medicare, and Dr Bernard Fong, its Medical Director, attended the HMA Council meeting on 10 July 1992 to reveal early analysis of the recently implemented coding procedures. Ms Yamashiro noted that 72% of Hawaii physicians are coding properly.

To establish local medical policy, Medicare is working with the Honolulu County Medical Society Medicare Claims Review Committee, composed of representatives from specialty societies.

Medicare will be monitoring Modifier codes No. 25 and 79 in particular; physicians who use these codes too frequently will be apprised of the fact. Medicare also will send letters to physicians who perform global surgeries in an effort to educate them to the proper procedures.

HCFA requires that each carrier have a full-time fraud unit and will expect the carrier to actively pursue fraud and abuse. HCFA's Medicare Abuse Fraud Division will be based in San Francisco. Ms Yamashiro will ask for a waiver on that requirement and will ask the Honolulu County Medical Society Medicare Claims Review Committee to look at policy and make recommendations.

In parting Ms Yamashiro noted that Medicare hopes to reduce and eliminate physicians' hassle factors through good communication with HMA.

Neal Winn and Fred Holschuh accepted an award in Chicago on behalf of the HMA in recognition of outstanding membership recruitment efforts in the Hospital Medical Staff Section outreach program; and for their efforts in recruiting new members to the AMA, John McDonnell and Calvin Kam were presented with beautiful navy blazers sporting the AMA logo on the pocket.

John Armstrong, our HMA delegate to the AMA Resident Physicians Section, was congratulated for his election to the post of Resident Physicians Section delegate to the AMA. He campaigned nationally for this honor.

The Hawaii State House of Representatives commended and congratulated HMA for its support of the International "Play It Safe" program.

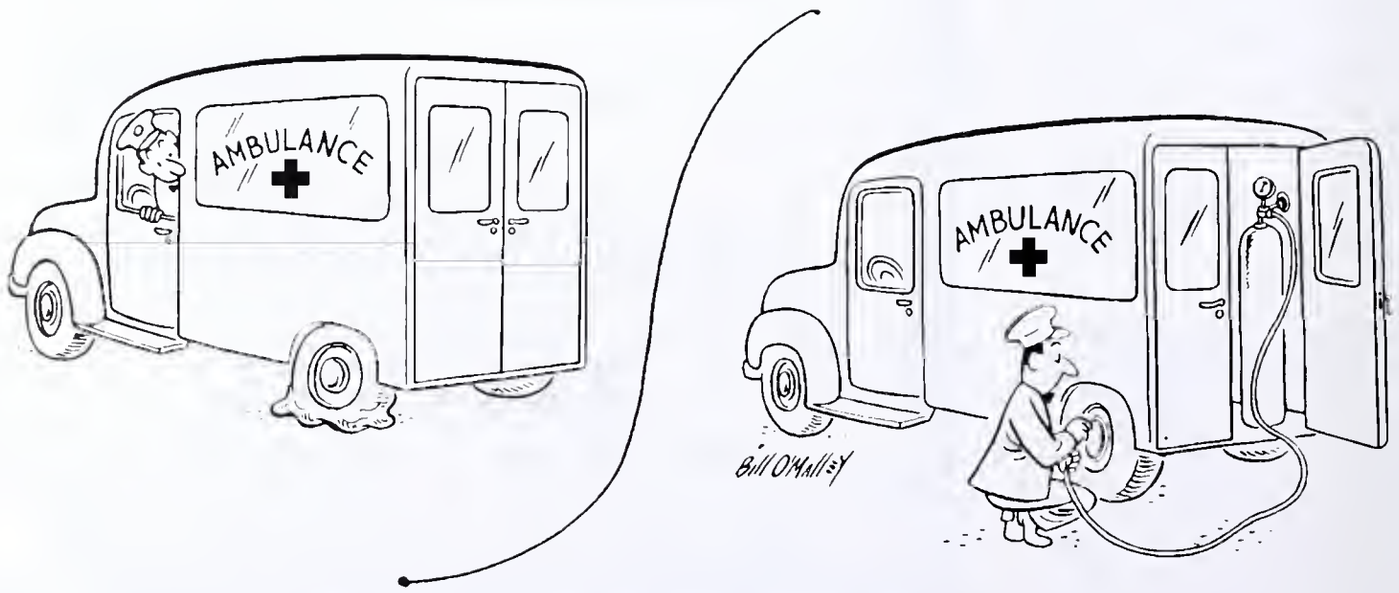
Mrs Gwen Fu, president of the HMA Auxiliary, was congratulated by the HMA Council for the group's efforts in stopping the distribution of the "True Crimes Cards" in Hawaii. She reported that an HMA delegation traveled to Chicago to attend the AMAA Annual Meeting, and that the AMA Auxiliary voted to change its name to the AMA Alliance.

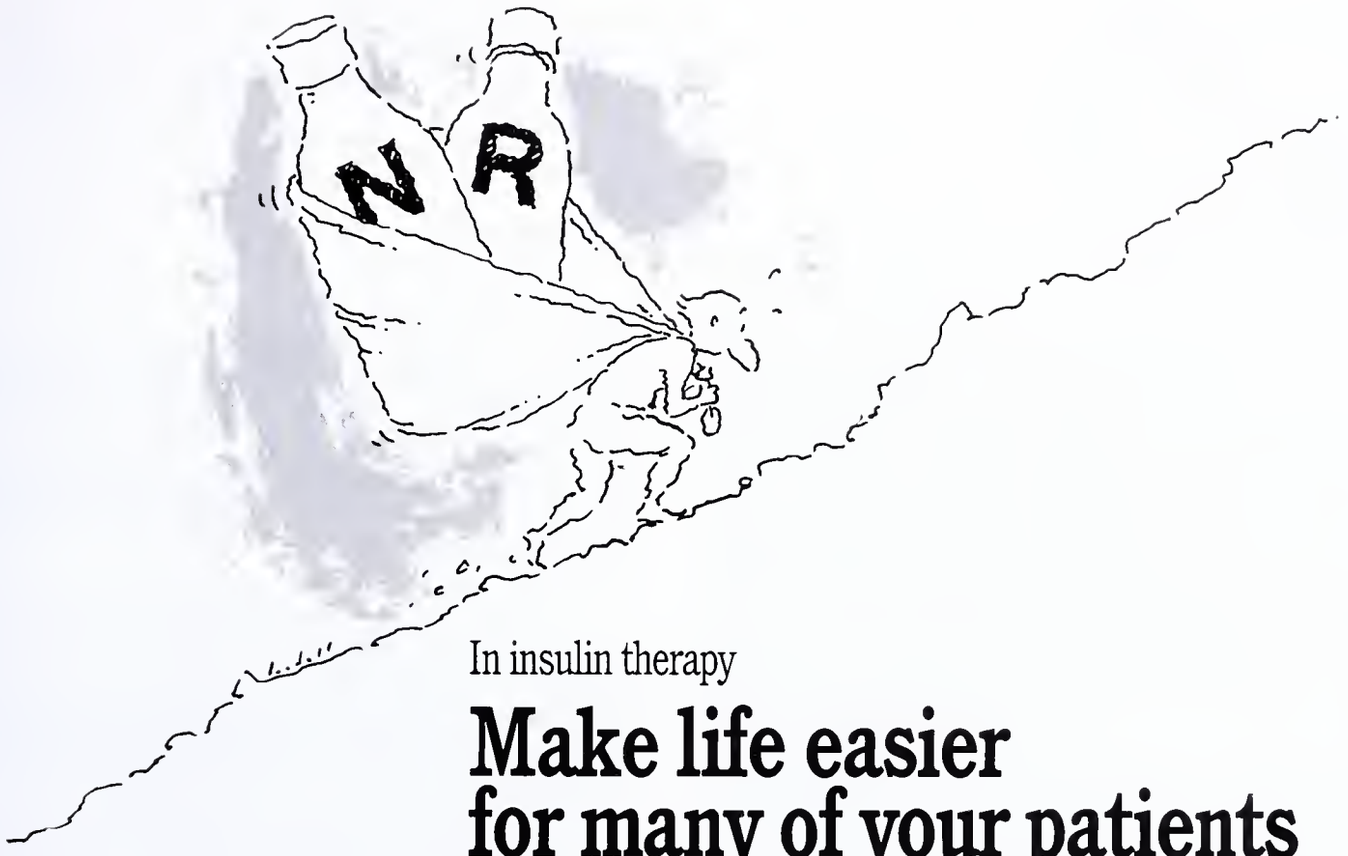
John McDonnell reported that the Membership Task Force has officially launched its campaign to recruit 100 new members; a $50 dues credit and other benefits were approved by Council.

Herbert KW Chinn and the Membership Benefits Committee have actively solicited benefits including a reduction in collection service fees from Transworld Systems, substantial savings for personal and business loans from First Hawaiian Bank, price consideration at Lexus of Hawaii, and membership in the Memorial Society of Hawaii. Council expressed its appreciation to Herb for his efforts.

The Council nominated George Starbuck as the HMA's representative to the Child Welfare Services State Advisory Council.

Andrew Don MD
HMA Secretary





In insulin therapy

Make life easier for many of your patients

Humulin 70/30. Convenient and simple to administer. No more mixing. No more mixing errors. All of which makes living with diabetes a little easier for patients. And compliance a lot easier to achieve.



Humulin® 70/30

70% human insulin isophane suspension
30% human insulin injection
(recombinant DNA origin)

The patient-friendly premix

Global Excellence in Diabetes Care

Eli Lilly and Company
Indianapolis, Indiana
46285

WARNING: Any change of insulin should be made cautiously and only under medical supervision.

HI-7905-B-249327 ©1992, ELI LILLY AND COMPANY



An Alternative

There is considerable sentiment within the general public for "alternative" forms of health care. Although the *Journal* is dedicated to publishing scientific articles and writings on medical-socioeconomic issues, we perhaps should keep abreast of times and explore the periphery of the healing arts.

We open the door to such an approach in this issue of the *Journal*. Rock K T Ng, the author of "Cardiopulmonary exercise as a recently discovered secret of tai chi," is a civil engineer with HD&C, an old construction company here in Hawaii and elsewhere. Aside from that he has had an interest in tai chi since he was 7 years old in Hong Kong, an apprentice to and disciple of a famous master—Sifu, in Chinese, comparable to Sensei in Japanese—by the name of Wu. This master/disciple association continued for 22 years until Wu died; the master had bestowed upon Rock the mandate to teach tai chi and to impart its "secret" thereafter. He has done so in California and here.

Tai chi is one of the martial arts, but it stresses defense, and it forswears aggression. Rock emphasizes the fact that "the older you are, the better you are at it." This had always been a mystery until Wu "discovered" its secret—that it affected the joints of the body in a positive way.

Rock has been teaching tai chi the past 26 years at many schools, for organizations and to groups. According to him, he has studied anatomy, physiology and has gone into acupuncture on a basis of improving people's health; but he is very modest about his accomplishments.

Tai chi has a large following in Hong Kong. It boasts an academy in Los Angeles but there is no formal organization dedicated to it here in Hawaii.

We express appreciation for Rock's allowing us to interpret what he means to say, he being hampered somewhat by the English language with which he is not too familiar.

We ask for the indulgence of our reader in submitting this article for their perusal and interest, and we would like some feedback from them as to its acceptability in the pages of the *Journal*.

J I Frederick Reppun MD
Editor



I read with interest the letters in the March issue of the *Journal* by John H Houk MD and Stephen A J W Lung regarding the implementation of new managed care rules by our major insurance provider. It became apparent in reading these two letters that there is a wide chasm between our physician community and the insurers who provide managed care.

While it is true that participation with insurance plans and Medicare has enhanced access in Hawaii, strong competition especially on Oahu has promoted this as well. Hawaii's cost *per capita* for health care is among the lowest in our nation. However, much of this also can be explained by our demographic and ethnic population mix (the average longevity for orientals is significantly higher than Caucasians, ie, Chinese women live an average of 88 years). In addition, our community-rating for insurance premiums spreads the risk, resulting in a sharing of the cost *per capita*.

Although one of the primary driving forces behind managed care is cost, there are many others such as quality and efficient and effective use of our health care resources. Many physicians feel that quality and cost are linearly and directly related. This is not true. Eventually a point of diminishing returns is reached when plotting the graph of cost and quality. This is highlighted to physicians almost daily when they see the poor quality of care and tremendous costs incurred when inappropriate medical care has been delivered (ie, costs are tremendously high and quality is very poor).

"Hassle factors" truly have to be addressed if managed care is to succeed. The administrative burdens and regulations our physician community faces is enormous. The addition of these overheads to our medical system will not serve to enhance the efficient and effective use of our health eare resources. Managed care mechanisms must be streamlined with physician input. Suggestions for the development of managed care, coupled with a long-term partnership with physicians, are necessary.

This alliance between the segments of our health care system: physicians (and other providers), managed care administrators, and patients, will be the only way the private-practice health care system will survive.

Robert V Hollison Jr MD FACP FAAFP
Medical Director
The Queen's Health Care Plan, Inc/Island Care

Ed Sheehan: a literary giant

Ed Sheehan

Ed Sheehan was a long-time resident and supporter of Hawaii; he was a literary giant and was with us, even when he went to live in England in his later years. Ed died on Thursday, 11 June, 1992 at the Queen's Medical Center.

We can think of no better way for our profession to show its appreciation of his contribution to our community than by reprinting a column in the Sunday Star-Bulletin & Advertiser of 21 February 1982. We entitle it "A testimonial to opthalmology in the 1980s."

J I Frederick Reppun MD
Editor

In this world, one needs a few addictions, distractions of movies, music, martinis and books. They are means by which we soothe abrasions of our days such as gloomy news, incredible prices and sociopaths carrying large and raucous radios. Since a heart attack a year ago, I've had to develop new addictions.

First is not thinking about cigarettes, for I enjoyed smoking. Another is not thinking about a pinch of salt on food—or of some food itself—large cheeseburgers, plump shrimp in spicy sauce, pork chops, bacon and eggs, knockwurst and Portuguese sausage. I could list foods right down to the bottom of this page that I don't think about anymore.

But my No. I addiction is the morning walk. My eyes pop open every day at 5:30 a.m. A few minutes later, I'm on the Waialae-Kahala roads in the dark. It's an absorbing hour, alive with happenings.

Sometimes a glow from Honolulu suffuses clear sky. Other times, a cloud cover over the Koolaus deepens the dark. Yellow streetlamps spill eerie light. Houses are obscured on neat plots of grass and trees. A newsboy on a bike wheels out of gloom. A few early joggers and walkers are about, aloof, mute, puffing.

A cock crows from the Kaimuki area. I wonder if he is a domestic or fighting chicken. Cats sit like sculptures on sidewalks, fine-tuned to mynahs chattering awake in banyans. I've come to know almost every dog for miles. A few of the older ones roam free, strolling about to leave identification here and there. These canine senior citizens are polite and quiet. Most glance up as I pass, and some smile, although it's difficult to discern at that hour.

Younger dogs exercise their territorial imperative with manic warnings that must be less than music to neighbors. I've learned to avoid places where German-descended beasts hurl themselves at fences and gates, clearly thirsting for my jugular. Human counterparts of the noisier animals are the trash collectors. These burly brothers shatter the dark with their shouts, the grinding of the truck's compactor and shriek of its brakes. They must be a horror to hangover sufferers along their routes.

But the pleasant sights more than compensate: well-constructed ladies who jog, a flock of gurgling white doves on Kahala, the last twinkles of hillside lights, and stars dropping out one by one. Recently, I see with both eyes and much more clearly. I am more aware of the black sea turning to aluminum, of palm swords taking definitive shapes, and the awakenings and subleties of the time between dark and sunrise.

Reason for this expanded vision is a few minutes under an eye surgeon's scalpel—a frightening experience to contemplate, but one no more painful than a haircut. What happens in a cataract operation is fantastically complex, considering the delicacy of the eye. Put most simply, an incision is made, the offending curtain removed and the lens replaced with a plastic one. Everything ancillary to this process is duck soup.

In Queen's at 7:30 a.m., a nice Hawaiian lady gave me an expert jab in the rear, then demanded my clothes. She then handed me one of those humiliating open-backed robes, and hovered with an eye dropper.

"It's the left eye, isn't it?"

"NO. The right," I told her. My exposed rear was chilled. Why does one have to be stark naked for an eye operation?

Fifteen minutes later when the hypo grabbed, I didn't care how I was dressed. I was flying over the upper reaches of Manoa Valley. When I descended, I was outside the Queen's operating rooms with other prone and cocooned figures. Many men in masks were lounging around, chattering about golf and real estate, so I knew they were doctors. One of the group introduced himself as my anesthesiologist, then asked:

"The left eye, right?"

"NO, it's the RIGHT eye!" Was this some ghastly in-house joke? I thought of demanding that a direction be marked with an arrow on my forehead.

Minutes later I was on the table with nurses tucking and puttering. Only their dark and lovely eyes were visible. I was conscious only of someone poking around my head, and muttering between long silences.

It was all rather boring. Gerald Faulkner, the surgeon, said I napped and snored through the 25-minute operation. At about 10:30 a.m., the nice Hawaiian lady was serving me toast and coffee. I departed at noon, feeling marvelous. The next morning the bandage was removed.

Et voila! I no longer have a cyclopean—and sometimes double—view of surroundings. A day or two later I was typing without glasses for the first time in 15 years. During my early morning walks, there occasionally were two moons, now there is only the normal one. Without the cataract, Faulkner says, I will soon enjoy near 20/20 vision. Some fairly new "old wives" tales already exist about cataract operations. Most prevalent is that they are accomplished by "laser" beams. There is no such process. Another is that the cataracts must be "ripe," ie aged sufficiently for removal. Not true either. Cataracts can be removed at any stage. Another misconception is that the operation is painful. The only discomfort was when the nice Hawaiian lady gave me the relaxing jab in my seat.

It was a ridiculously small price to pay for a world that has become so beautifully enlarged — even in the dark at 5:30 a.m. ■

Acute rheumatic fever in Hawaii: 1966 to 1988

L T Chun MD
D Venu Reddy MD MPH
Gregory K Yim MD
Loren G Yamamoto MD MPH

Seventy five children with acute rheumatic fever (ARF) were hospitalized on Oahu from 1984 to 1988. The annual incidence rate was 9.5 (all rates are per 100,000 children per year). The first attack and recurrent attack rates were 7.9 and 1.6. Polyarthritis occurred in 84%, chorea in 7%, and carditis in 32%. Mitral insufficiency was the most common valvular lesion (88%). Hawaiians/part Hawaiians and Samoans had the highest incidence rates (relative risk 3 and 56, respectively). Polynesian children were 84 times more likely to develop carditis.

Five hundred thirty nine ARF cases were hospitalized on Oahu, 1966 to 1974 and from 1976 to 1988. The annual incidence rate of ARF on Oahu has remained fairly constant at about 12.4. The incidence rates in all ethnic groups have decreased except in Samoan children.

Introduction

In the early 1980s, numerous articles appeared that relegated ARF to a minor role in the continental United States among children in the 5 to 17-year age group[1,2,3]. As compared to 40 to 65 cases per 100,000 population per year between 1935 and 1960, the number of cases declined to 0.5 to 1.9 cases per 100,000 population per year between 1977 and 1981[4,5]. Clinicians in Hawaii, however, have continued regularly to encounter patients with ARF. A resurgence of ARF in the continental U.S. occurred in 1985, the attack rate increasing to 18 per 100,000 population per year in Salt Lake City, Utah[6,7]. Since 1985, others have reported similar experiences[6-15]. Because of the renewed interest in ARF, we were prompted to continue our survey of hospitalized children with ARF in Hawaii from 1984 to 1988. We previously reported our experience with ARF for the periods 1976 to 1980[16] and 1980 to 1984[17] in which the annual attack rates were 14.4 and 13.4 per 100,000 children respectively.

Historically, the first case of ARF in Hawaii was described in a medical conference in 1938[18] and the first recorded case was reported in 1941[19]. During 1942 to 1946, 17% of all cardiac cases admitted to the hospitals (1.2% of all admissions) in Hawaii were due to rheumatic fever (RF)18. Between 1947 and 1949, 73 patients (1.2% of all admissions) were admitted for RF[21]. In 1950, the Hawaii Territorial Board of Health had on its active clinic roster 257 acute and chronic pediatric RF cases. Between 1955 and 1959, 91 children (0.6%) with RF were admitted to the Kauikeolani Children's Hospital in Honolulu[20]. Children hospitalized in the 7 major hospitals on Oahu, with first attack ARF from 1966 to 1974, accounted for an annual rate of 11.8 cases per 100,000 children aged 0 to 19 years[22].

Hawaii differs from the continental U.S. in that it is geographically isolated and its ethnic composition is composed largely of Polynesians, Asians, and Caucasians. Epidemiological patterns of diseases other than RF often resemble the patterns in North America and Asia reflecting Hawaii's geographical location between those two land masses, as well as Hawaii's genetic blend of people from both the west and the east sides of the Pacific ocean.

Hawaii lends itself to the study of epidemiology because its borders are clearly defined, making it easier to perform population-based surveys of the occurrence of disease. RF in Hawaii has been regularly studied since the 1940s[16-23]. The purpose of our report is to describe the most recent survey of ARF from 1984 to 1988 and to present our overall experience with ARF over a 20 year period from 1966 to 1974 and 1976 to 1988.

Methods

The case records of children 4 through 18 years of age who were hospitalized October 1984 through September 1988 for ARF in all 10 hospitals on the island of Oahu (City and County of Honolulu) were reviewed. The diagnosis of ARF was based on the revised Jones criteria[24]. Non-hospitalized children and those not residing on Oahu were not included in this study.

The Hawaii State Department of Health Research and Statistics Office provided 1986 estimates of the population of Oahu children 4 through 18 years of age. This was divided into 8 major ethnic groups: Caucasian, Japanese, Chinese, Filipino, Hawaiian/part-Hawaiian, Samoan, Black and others. Samoans were defined as children with 100% Samoan ancestry. Tongan children, children with mixed ethnicity, other Pacific island children were included in the "other" category. This group was composed mostly of those with mixed ethnicity. Due to the heterogenous ethnicity in Hawaii, this group did not have any single dominant ethnic population. Hawaiians and part-Hawaiians were grouped together.

The data collected from 1984 to 1988 were compared with similar data collected in 3 previous studies done on Oahu which examined groups studied in 1966 to 1974[22], 1976 to 1980[16], and 1980 to 1984[17]. Although the latter 2 studies included children with first attack as well as recurrent ARF, the 1966 to 1974 study examined children only with first attack ARF.

Results: 1984 to 1988

Seventy-five children with ARF were identified in the study hospitals during the 4-year period. In each of those 12-month

Department of Pediatrics
University of Hawaii John A Burns School of Medicine
Kapiolani Medical Center for Women and Children

Address reprint requests to: D Venu Reddy MD MPH
1319 Punahou St, Suite 1160, Honolulu HI 96826

Table 1. Age and Sex Distribution of ARF Patients.

GROUPS	10/84-/88	10/80-9/84	10/76-9/80	OVERALL
4 -5 years	2 (3%)	4 (4%)	5 (5%)	114 (4%)
6 - 11 years	38 (51%)	43 (44%)	52 (50%)	133 (48%)
12 - 15 years	2 (39%)	34 (35%)	35 (34%)	98 (35%)
16 -18 years	6 (8%)	17 (17%)	12 (12%)	35 (13%)
Males	4 (65%)	59 (60%)	53 (51%)	161 (58%)
Females	26 (35%)	39 (40%)	51 (49%)	116 (42%)
Total	75	98	104	277

Table 2. Month of onset of ARF

MONTHS	10/84-9/88	10/80-9/84	10/76-9/80	OVERALL
January	4 (5%)	7 (7%)	13 (13%)	24
February	5 (7%)	8 (8%)	8 (8%)	21
March	2 (3%)	4 (4%)	8 (8%)	14
April	8 (11%)	14 (14%)	6 (6%)	25
May	6 (8%)	3 (3%)	2 (2%)	11
June	4 (5%)	6 (6%)	2 (2%)	12
July	2 (3%)	4 (4%)	5 (5%)	11
August	8 (11%)	10 (10%)	13 (13%)	31
September	12 (16 %)	16 (16%)	7 (7%)	35
October	9 (12%)	9 (9%)	17 (16%)	35
November	6 (8%)	10 (10%)	9 (9%)	25
December	9 (12%)	7 (7%)	14 (13%)	30

periods there were respectively, 10, 11, 24, and 30 hospitalized children with ARF. The 1986 Oahu population for the age groups from 4 through 18 years of age was 197,174, so that the average annual incidence was 9.5 per 100,000 children. The annual incidence for first attacks was 7.9 per 100,000 children (62 cases) and that for recurrent acute attacks was 1.6 per 100,000 children (13 cases). At the time of the recurrent acute attack, none of the children had been on antimicrobial prophylaxis

The age and sex distribution is shown in Table 1. The majority of the cases occurred in the 6 through 15 year-old age group. Sixty-five percent were boys and 35% were girls. The monthly distribution in the 1984 to 1988 study period and during the study period 1976 to 1984 is shown in Table 2. Most of these cases occurred between the months of August and December.

The overall incidence of RF and carditis is broken down by ethnicity in Table 3. Hawaiians/part-Hawaiians and Samoans (Polynesians) had the highest incidence, accounting for 72% of the cases. As compared to Caucasian children, Hawaiian/part-Hawaiian children were 3 times and the Samoan children were 56 times more likely to have ARF. There were no Blacks with ARF during the study period.

Carditis occurred in 24 children (32%). Although the numbers are small, one can say that the Polynesian children were 84 times (relative risk 84 compared to the incidence rate of non-Polynesians) more likely to develop carditis. Of the children with carditis, 2 had Sydenham's chorea and 8 had recurrent attacks of ARF. Mitral insufficiency (MI) occurred in 21 children (88%) (13 children had MI alone). Combined mitral and aortic insufficiency (AI) occurred in 8 children (33%), and isolated AI occurred in 2 children (8%). Congestive heart failure was present in 10 children (42%). Pericarditis occurred in 4 children (17%). One child had third-degree atrioventricular block (AVB) along with MI, AI, and congestive heart failure.

Table 3. Rheumatic fever and carditis in children 4 through 18 years of age on Oahu, Hawaii, by Ethnicity, 1984 to 1988. Population figures are for nonmilitary population.

Ethnic Groups	Population		RHEUTMATIC FEVER			CARDITIS	
	Number	Pct	# of Cases	Incidence*	Relative Risk**	# of Cases	Incidence
Caucasian	36,125	18.3	5	3.5	1.0	0	0
Japanese	28,829	14.6	0	0	0	0	0
Chinese	7,062	3.6	0	0	0	0	0
Filipino	21,813	11.1	3	3.4	1.0	0	0
Hawaiian/ part Hawaiian	49,113	24.9	23	11.7	3.4	6	3.1
Samoan	3,981	2.0	31	195.0	56	13	82
Black	9,067	4.6	0	0	0	0	0
Other	41,184	20.9	13	7.9	2.3	5	3.0
Total	197,174		75	9.5		24	3.0

(Continued) ➤

* Incidence is the rate per 100,000 population per year.
** Relative risk uses the Caucasion group as the denominator.

Of the other major manifestations, polyarthritis occurred in 63 cases (84%), chorea occurred in 5 (7%) and erythema marginatum occurred in 2. There were no cases with subcutaneous nodules during this period. Polyarthritis and carditis occurred together in 14 cases. Polyarthritis and chorea occurred together in 1 case. As stated above, chorea and carditis occurred together in 2 cases.

First degree AVB was present in 22 out of 69 children based on the electrocardiogram (32%). Fever was present in 41 children (55%). Arthralgia was reported in 50 children (67%). Arthralgia was noted to be polyarthritic; additional minor criteria were used to fulfill the Jones criteria in these instances.

[It is to be noted that 32 of the 75 children (43%) had no medical insurance and 3 (4%) had Medicaid coverage. Of the 35 patients on Medicaid, or who had no medical insurance, 29 (83%) were Polynesian. Polynesians without insurance had a higher incidence of ARF than the Polynesians with insurance.]

Results: 1966 to 1988

During the 20-year period 1966 to 1974 and 1976 to 1988, 539 hospitalized cases of ARF in children were observed on Oahu. Although the total number of new cases of ARF is declining on Oahu, the incidence pattern differs from that of the continental U S.

The number of ARF cases identified during 1966 to 1974 was 262, which is approximately 29 cases per year[22]. A similar trend continued in 1976 to 1980 (104 cases) and 1980 to 1984 (98 cases) when approximately 26 and 25 cases respectively occurred annually[16,17]. Our survey, on the other hand, in 1984 to 1988, showed a decreased number of cases, a total of 75, which is 19 cases per year. Fig. 1 describes the number of ARF cases over the 20-year study period among the different ethnic groups.

During the period from 1966 to 1974, only children with first attack ARF were considered. The annual incidence was 11.8 hospitalized cases per 100,000 children[22]. During the 1976 to 1980[16] and 1980 to 1984[17] periods, the first attack rates were 12.5 and 10.9 hospitalized cases per 100,000 children, respectively. Samoans were not categorized separately in the 1966 to 1974 period. They were included in the "other" group during this period.

The overall annual incidence of ARF for both first-attack and recurrent acute attacks was 14.4 and 13.4 hospitalized cases per 100,000 children during the 1976 to 1980[16] and 1980 to 1984[17] periods, respectively. Fig. 2 shows the incidence among the ethnic groups during each of the two study periods covering 1976 to 1988. Samoan children had an average annual incidence of 166 per 100,000 and Hawaiian/part-Hawaiian children had an average annual incidence of 19 per 100,000. This compares well with Caucasian children who had an annual incidence of 5 per 100,000. The incidence trends show a low baseline rate for Japanese and Chinese children, a low declining rate for Caucasian and Filipino children, a higher but declining rate for Hawaiian/part-Hawaiian children, and a persistently high rate in Samoan children.

Discussion

The incidence of rheumatic fever had been declining in the continental United States. Articles describing this decline appeared in literature as late as 1985[1,2,3]. More recent reports have described a sudden resurgence of rheumatic fever[6-10,12-15].

The reasons for the dramatic decline in the incidence of acute rheumatic fever in the United States and other highly developed countries have never been clearly established[25]. The associations between it and poverty, living standards, socioeconomic status, nutrition, hygiene, access to medical care, antibiotics, degree of crowding in households and genetics have all been implicated. Another factor contributing to first the decline and then to its resurgence has been the changes in the biologic properties and clinical virulence of prevalent streptococcal strains, particularly M-serotypes (types 1, 3, 5, 6, 14, 18, 19, 24) which have been implicated as markers of rheumatogenicity. These are highly virulent and strongly associated with ARF[25].

The incidence of RF in Honolulu was constant during 1966 to 1984 and then declined during 1984 to 1986, with a subsequent rise in 1987 and 1988. The high percentage of Asian and Polynesian children in Hawaii makes the ethnic composition of our population very different from that in other states. However, in observing the trend in the Caucasian group alone, a significant rise in incidence among this group has not been observed. Besides that, the trends in the Asian and Hawaiian/part-Hawaiian groups have been consistently downward.

It is clear that our data indicate that the incidence in Hawaiians/part-Hawaiians and in Samoans is many times higher than in other ethnic groups. Although the absolute incidence and the incidence in Hawaiian/part-Hawaiians are both declining, the reason for the opposite trend for the incidence of Samoans is unclear. The rate is determined by comparing the absolute incidence with the total Samoan population of this age group. The absolute incidence among Samoans appears to be roughly the same in 1980 to 1988.

The reasons for these ethnic differences have been discussed in previous reports[16,17]. Newer data attempting to further clarify this issue have not been forthcoming, as yet.

Utah described the ethnic breakdown of its RF patients as 94% Caucasian, 4% Pacific Islander, 1% Hispanic, and 1% Asian; this was similar to the percentages of its general population[6,7]. The Pennsylvania cohort of RF patients during 1985 to 1986 was 94% Caucasian; this was an increase from 81% Caucasian in the 1965 to 1974 period. The frequency of Blacks in this cohort decreased from 15% to 0% during the same time period[9]. The cohort of RF patients in Columbus, Ohio, was 90% Caucasian and 10% Black in a community composed of 80% Caucasians and 20% Blacks[8]. The RF cohort reported from Akron, Ohio, was 96% Caucasian[13]. These recent series of RF patients suggest that Caucasians are more frequently affected than other ethnic groups. (This trend has not been observed on Oahu.)

A series of 110 RF patients seen over a period of 20 years in New York City noted a shift in ethnic distribution with an increase in Hispanics and a decrease in Blacks which paralleled the ethnic distribution of the population seen in their outpatient clinic[12]. The series of cases in Tennessee had demographic characteristics similar to the demographics of the population in general served by the study center, which included an urban, low-income group of large families[14]. These ethnic comparisons do not indicate a consistent pattern across the country as a whole.

In a national survey of medical centers across the U.S. mainland, 5,019 cases of RF were identified during the 4-year period from 1984 to 1987. More than 50% had heart involvement.

(Continued on page 210) ➤

You'll love working with our locum tenens physicians and allied health care professionals. WE GUARANTEE IT.

CompHealth has thoroughly credentialed physicians and allied health care providers from more than 40 fields of specialization available to provide locum tenens, or temporary, staffing assistance when and where you need it.

Plus, we have the standards and experience to guarantee your satisfaction each time we place a member of our medical staff in your practice or facility. It's the closest thing you'll find to a risk-free way to cover for absent staff members, "try out" a potential new recruit, or take care of your patients while you search for a new full-time associate.

Call us today to arrange for quality locum tenens coverage, or to discuss your permanent recruiting needs.

CompHealth

COMPREHENSIVE HEALTH CARE STAFFING

1-800-453-3030

Salt Lake City ■ Atlanta ■ Grand Rapids, Mich.

"EMCRBRVSHCFAAMACPT." NEED SOME HELP WITH YOUR SPELLING?

Pacific Software Inc.

Solutions for Hawaii's Physicians

- Designed and Developed in Hawaii.
- Largest Supplier of Office Management Systems in the State.
- Systems for Every Sized Practice.
- Data Processing Service.
- Servicing Hawaii's Medical Community since 1981.

PACIFIC SOFTWARE INC.

Pacific Software Building • 537 Pensacola Street • Honolulu, Hawaii 96814 • (808) 521-2800

By examining the change in incidence of RF during this period in different regions of the U.S. investigators were unable to demonstrate any significant nationwide trend in RF. The survey suggested regional increases which were not present in all areas of the U.S.[11].

The epidemiology of RF on Oahu appears to have an incidence pattern of its own. These data add support to the conclusion that recent increases in RF are regional rather than universal.

Cases of rheumatic fever occurred less commonly during the months of May, June, and July in our series. Utah noted a peak incidence in March and April[6]. The series in Columbus noted a higher frequency in March through August[8].

Carditis occurred in 78% and chorea occurred in 28% of the Utah cohort. This cohort also noted carditis and polyarthritis together in 44%, carditis and chorea together in 14%, and carditis, chorea, and polyarthritis together in 6%[6]. In the Pennsylvania cohort, carditis occurred in 59%, carditis and polyarthritis in 45%, and carditis and chorea in 17%[9]. In the Columbus cohort 50% had carditis, 18% had chorea, and 65% had polyarthritis[8]. Carditis occurred in 30% and chorea occurred in 9% of the Akron cohort[13]. The series from Tennessee reported carditis in 75% and chorea in 29%[14]. The New York cohort noted 51% with carditis and 4% with chorea[12]. The low frequency of chorea in the New York series was attributed to the practice of some neurologists to follow chorea in an outpatient setting[12].

The frequency of chorea and carditis in most of the Mainland cohorts is much higher than that observed in our Oahu cohorts. It is possible that the frequency of carditis may be underestimated in our cohort during this time period because of the limited use of Doppler echocardiography. However, it is unlikely that this alone could account for such a large difference. It is unlikely that the frequency of chorea could be underestimated, because it is quite a dramatic presentation. An alternative explanation might be that in other communities, hospitalization of RF patients with polyarthritis alone is not a standard practice. Bedrest and salicylate therapy can reasonably be administered to an outpatient; of 23 patients with acute RF during 1986 in the Akron series, only 14 were hospitalized[13].

If treatment of these RF patients is done as an outpatient, then studies examining the frequency of RF among hospitalized cohorts will not identify these patients. Patients with polyarthritis alone are less likely to warrant hospitalization than patients with carditis and chorea. On Oahu in general, all children with RF are hospitalized, even if polyarthritis is the only criterion apparent.

It is possible that in the above-mentioned Mainland series, researchers have failed to identify a significant portion of children with RF presenting with polyarthritis alone. Outpatient treatment with salicylates or nonsteroidal anti-inflammatory drugs for what might have been identified as joint pain due to trauma or other forms of reactive arthritis may have prevented the identification of these patients as having of RF that required hospitalization. The period of time during which RF was almost nonexistent in many areas may have been the result of failure on the part of clinicians to consider this diagnosis in a patient with joint pain alone. Among pediatricians in Honolulu, this is less likely to occur since RF has never really disappeared from Hawaii.

One recent article described the identification of carditis by means of Doppler echocardiography in patients who clinically appeared to have chorea without carditis[7]. Echocardiograms were done on 36 patients in our cohort. Echocardiograms identified carditis in 17 cases. Seven patients with carditis did not have echocardiograms done. Of the 5 patients with chorea, 2 had echocardiograms done; one was negative and one had identifiable carditis. We did not record whether the diagnosis of carditis had been identified clinically prior to the echocardiogram.

On examining the trend of carditis from 1976 to 1988, the frequency of carditis continued to decrease. Echocardiography was performed only infrequently prior to 1984 in our cohort. This suggests that the routine use of echocardiography has not significantly increased diagnostic identification of carditis in RF patients in this cohort. However, in other cohorts where the frequency of carditis is higher, routine Doppler echocardiograms may be of value in identifying occult valvulitis.

Seventeen percent of the 1984 to 1988 Oahu RF cases were due to recurrent RF. The frequency of recurrent cases was 19% in the 1980 to 1984 series[17] and 13% in the 1976 to 1980 series[16] on Oahu. None of the patients in the 1984 to 1988 and the 1980 to 1984 Oahu RF series with recurrent RF was on antibiotic prophylaxis at the time of recurrence[16,17]. A 10% recurrence rate was noted in the New York series. Ten of those 11 recurrences took place in patients who were not on antibiotic prophylaxis at the time of recurrence[12]. This suggests that recurrence of RF can be effectively prevented if compliance with antibiotic prophylaxis is continued.

A program established by the Hawaii State Department of Health using public health nurses, clinic nurses, and pediatric cardiologists to follow children with RF until they become adults helps to enforce compliance. Despite this program, the frequency of recurrence is still significant, although only among patients not on antibiotic prophylaxis. The island community of Oahu has clearly defined borders and has a relatively less mobile population. However, in other regions where similar programs to enforce compliance with antibiotic prophylaxis exist, keeping track of RF patients would be significantly more difficult, considering that there are no barriers there to unrestricted mobility.

Summary

The total incidence of RF on Oahu has remained fairly constant. The incidence among all ethnic groups has decreased, with the exception of the Samoans. Polynesians have the highest incidence in all of the studies examining RF in Hawaii. The ethnic changes and incidence trends of RF in areas of the U.S. mainland described in the literature have not been duplicated in Hawaii. The lower frequency of carditis and chorea among RF patients on Oahu is not easily explained. Despite its nearly vanishing from areas of the Mainland in the recent past, RF has never disappeared from Hawaii. Theories attempting to account for the fluctuation in the frequency of RF must also explain the lack of such fluctuation in Hawaii, in order to be valid.

REFERENCES

1. Land MA, Bisno AL. Acute rheumatic fever: A vanishing disease in suburbia. *JAMA.* 1983;249:895-898.
2. Markowitz M. The decline of rheumatic fever: Role of medical intervention. *J Pediatr.* 1985;106:545-550.

3. Gordis L. The virtual disappearance of rheumatic fever in the United States: Lessons in the rise and fall of disease. *Circulation.* 1985;72:1155-1162.
4. Holmberg SD, Faich GA. Streptococcal pharyngitis and acute rheumatic fever in Rhode Island. *JAMA.* 1983;250:2307-2312.
5. Schwartz RH, Hepner SI, Ziai M. Incidence of acute rheumatic fever: a suburban community hospital experience during the 1970s. *Clin Pediatr.* 1983;22:798-801.
6. Acute rheumatic fever: Utah. *MMWR.* 1987;36:108-110,115.
7. Veasy LG, Wiedmeier SE, Orsmond GS, et al. Resurgence of acute rheumatic fever in the intermountain area of the United States. *N Engl J Med.* 1987;316:421-427.
8. Hosier DM, Cracnen JM, Teske DW, et al. Resurgence of acute rheumatic fever. *Am J Dis Child.* 1987;141:730-733.
9. Wald ER, Dashefsky B, Feidt C, et al. Acute rheumatic fever in western Pennsylvania and the tristate area. *Pediatrics.* 1987;80:371-374.
10. Ferrieri P. Acute rheumatic fever, the comeback of a disappearing disease. *Am J Dis Child.* 1987;141:725-727.
11. Kawasaki disease, rheumatic fever incidence assessed. *Infectious Dis in Child.* 1990;3(1):4.
12. Griffiths SP, Gersony WM. Acute rheumatic fever in New York City (1969 to 1988): a comparative study of two decades. *J Pediatr.* 1990;116:882-887.
13. Congeni B, Rizzo C, Congeni J, et al. Outbreak of acute rheumatic fever in northeast Ohio. *J. Pediatr.* 1987;111:176-179.
14. Westlake RM, Graham TP, Edwards KM. An outbreak of acute rheumatic fever in Tennessee. *Pediatr Infect Dis J.* 1990;9(2):97-100.
15. Giardina AV, Heaton S. Acute rheumatic fever in New York City. *NY State J Med.* 1988;88:385-386.
16. Chun LT, Reddy V, Rhoads GG. Occurrence and prevention of rheumatic fever among ethnic groups of Hawaii. *Am J Dis Child.* 1984;138:476-478.
17. Chun LT, Reddy DV, Yamamoto LG. Rheumatic fever in children and adolescents in Hawaii. *Pediatrics.* 1987;79:549-552.
18. Berk ME, Hartwell AS. Five years of heart disease in Hawaii. *Hawaii Med J.* 1949;8:177-180.
19. Doolittle SE, Tilden L. Rheumatic heart disease in Hawaii. *Hawaii Med J.* 1941;1:7-11.
20. Yim H. Rheumatic fever in Hawaii. *Am J Dis Child.* 1962;103:715-717.
21. Connor A, Yoshina T. Rheumatic fever in Hawaii. *Hawaii Med J.* 1951;10:181-182.
22. Rudoy R. Epidemiology of rheumatic fever in Hawaii, MPH thesis. University of Hawaii School of Public Health, Honolulu, Hawaii, 1979.
23. Reddy DV, Chun LT, Yamamoto LG. Advanced degree AV block in acute rheumatic fever. *Clin Pediatr.* 1989;28(7):326-328.
24. Committee on Rheumatic Fever and Bacterial Endocarditis (1982), American Heart Association: Jones Criteria (revised) for guidance in the diagnosis of rheumatic fever. *Circulation.* 1984;69:204A-208A.
25. Bisno AL. Group A streptococcal infections and rheumatic fever. *New Engl J Med* . 1991;325(11):783-793.

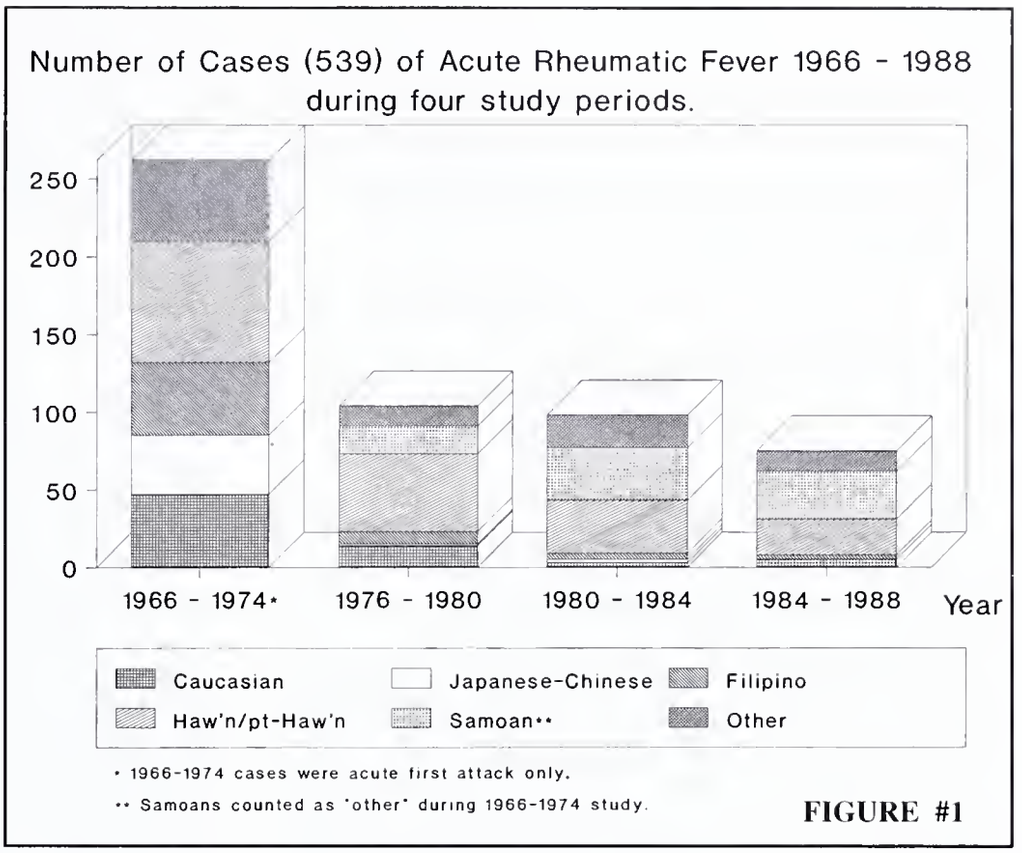


FIGURE #1

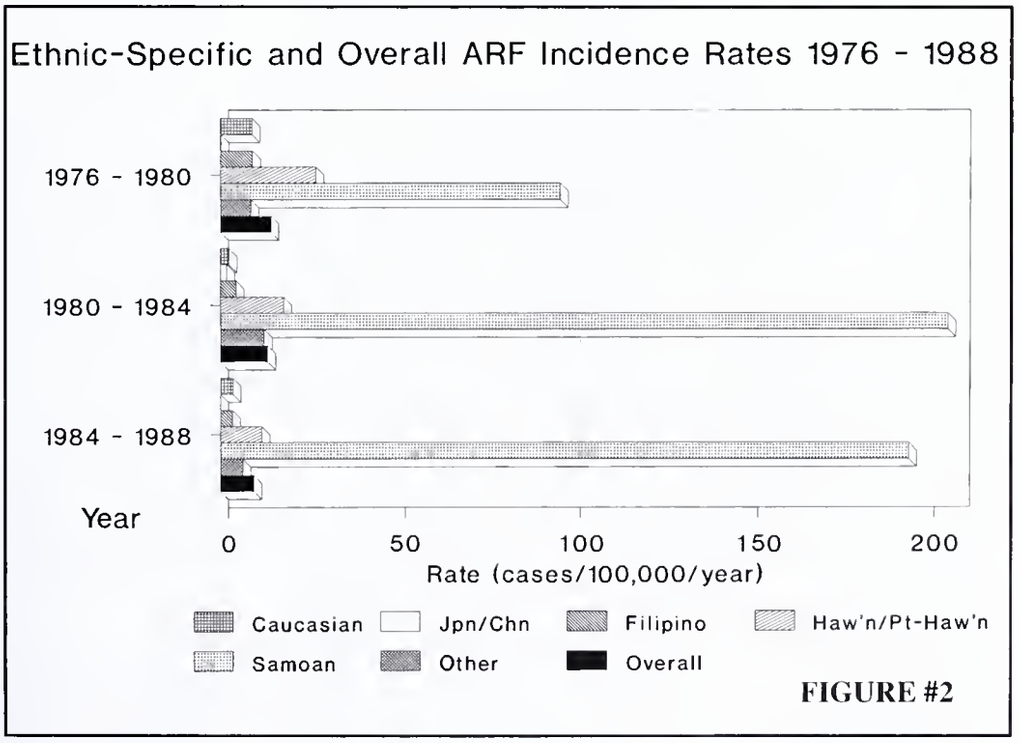


FIGURE #2

Health Matters: Social, economic and philosophical aspects of health care

David J Elpern MD*

Introductory remarks

I would have liked to welcome all of you to "Health Matters," a 4-day conference devoted to the examination of some ethical, social, economic and philosophical aspects of health care.

I have been a medical practitioner for about 20 years now — most of them spent right here on Kauai. Many times each day in my office I feel like a hypocrite. A major reason is because my patients are conditioned to expect a quick fix, drug, procedure or test, while in reality they have problems that cannot be cured or disorders which our medical model cannot handle.

Don't get me wrong. There are phenomenal things we can do for people and to people. The technical component is wondrous. As a dermatologist, I am honored to be able to prescribe Accutane for patients with severe cystic acne. The ophthalmologist is fortunate to have the skills to implant lenses, the orthopedist to replace hips, the pediatric oncologist to cure childhood leukemia; and the list goes on and on. These are great services to humanity.

Medically, these are the best of times; but in some important ways they are also the worst of times. This is because health care is about much more than just procedures and drugs and the selling of products. Only a small percentage of our patients really need the technical component. Franz Ingelfinger, an erstwhile editor of the *New England Journal of Medicine,* estimated that 80% of the people who enter a physician's door will do quite well with reassurance alone. The great majority of people who present themselves to doctors will not benefit from the MRI, the organ transplant, the powerful designer drug. Most just need a place to talk, someone to listen attentively; not someone to *talk at them,* or worse yet, someone to do something to them. Andre Dubus, an author, put it very well when he wrote, "There was a time when I believed I could help people by talking to them. I became a confidant, and I listened and talked a lot and never helped anyone at all. So now if someone comes to me, I offer what I know I can give: the friendship of a listening face."

This has become scripture for me. So here I am, a physician, a medical doctor (someone said: MD stands for Medical Deity), opening this convocation. A bit pompous, because this program is also for nurses, social workers, psychologists, all other allied health professionals, and, importantly, the public. I am not the captain of this ship. We are all passengers here, fellow travelers, gathered to listen to some "experts", to learn and to share our experiences.

This program was a joint effort of a number of individuals: Jan Carmichael, from the Kauai Rural Health Program, put in long hours in the planning stage and worked tirelessly on the nursing accreditation. Carol Rice, self-effacingly, from the Kauai Department of Health, was at Jan's side the whole time. Vicki Shambaugh, from the Pacific Health Research Institute, was involved with the project since the early stages. She has been an important liaison with the Hawaii Medical Association and the University of Hawaii.

Some of "Health Matters" emanated from my acute "disease" with my role as a high-priest of medical science. Recently, I have started to recognize that nurses are the real care-givers in our health care system (it look me a long time to see the obvious). When will we, as physicians, start to share our largess with them?

A few years ago, I began to appreciate just how often I was selling procedures, drugs, examinations to my patients. This is most often accomplished by scaring the public. Our medical organizations, as well as the media, the pharmaceutical industry and other groups who stand to gain from all of this, fuel the fire. Health care is an industry—a business, the MEDICAL-INDUSTRIAL COMPLEX. From these thoughts the program for the first day evolved. The title of our first speaker Arthur Barsky, MD's book says it all: *Worried Sick: Our Troubled Quest for Wellness.* In the morning, we will cover that, as well as *Practicing Prevention,* a subject which Marc LaForce MD has admirably addressed in his work and writings.

In the afternoon, we added a workshop entitled, "A Culturally Sensitive Approach to Hawaiian Health Care." This is the brainchild of Jan and Rick Carmichael (Rick is the Director of the Nursing Program at Kauai Community College). Our speakers, Lynette and Richard Paglinawan, and Rev Moses Keale are well qualified to address this subject.

That first evening in Lihue, we co-sponsored a lecture: "Star Wars vs Peace" by Victor Sidel MD. Dr Sidel was a co-founder of Physicians for Social Responsibility 30 years ago. He graciously agreed to address this subject for Kauai's public and our registrants. Some of you may not be aware that our paradisical bit of the firmament has been selected by the military as a site for a sophisticated offensive missile system. This multibillion dollar project may be thrust upon Kauai. However, a courageous local group, Responsible Citizens for Responsible Government, has challenged the military on its decision and may help rescue our island.

The defense industry has great parallels with the health care industry. Here, too, the public—in this case, taxpayers—are frightened into approving monstrously large expenditures for weapons systems by those who benefit directly from them: the military, the arms manufacturers and other special interest groups. The current crisis in the Soviet Union is undoubtedly welcomed by these groups. Victor Sidel will comment on this situation. We'll find out if he agrees with England's former Prime Minister Churchill who said in 1939, "I cannot forecast to you the action of Russia. It is a riddle wrapped in a mystery inside an enigma."

The second day we will consider issues of quality, cost, outcome and appropriateness of care. Fred Gilbert MD and Vicki Shambaugh

This article was mistakenly omitted from the July 1992 issue of the Journal. /Ed.

* The Kauai Foundation for Continuing Education, Kalaheo, Hawaii

"Health Matters" Presented at a conference on Kauai, August 23, 1991.

MPH from the Pacific Health Research Institute have been the leaders in this field in our state for quite some time. They orchestrated this day.

Medical care consumes over $650 billion per year in the U.S. How much of this care is really necessary? Medicine is about being a helper, not the stuff of business. Osler said, "The practice of medicine is an art, not a trade; a calling, not a business. . . Often the best part of [y]our work will have nothing to do with potion or powders." Is this true today? . . . Jackie Kosecoff PhD and Robert Brook MD are singularly well qualified to address the subject of just what it is in the medical armamentarium that **is** essential.

Day 3, a Sunday, will be appropriately devoted to looking at the spiritual and social aspects of health care. The Rev David Turner, pastor of the Kapaa United Church of Christ, will start this day at 7:15 am with a non-denominational service here at the Waiohai on the grassy area in front of the Terrace Restaurant. Mitsuo Aoki PhD, Professor *Emeritus*, Department of Religion at UH, Vic Sidel MD and Reed Tuckson MD, President of Drew College in LA, will follow in the morning session and consider some important, non-technical aspects of healers and healing. This will be a mind-expanding session.

On Monday, the final day, the subject of women in health care will be addressed. Medicine is a paternalistic, male-dominated profession. Yet, caring is a maternal quality. I have learned more about care-giving from nurses (most of whom are women) than from the scientists who formed me as a physician. Maybe the next generations of doctors will be selected in a new mode.

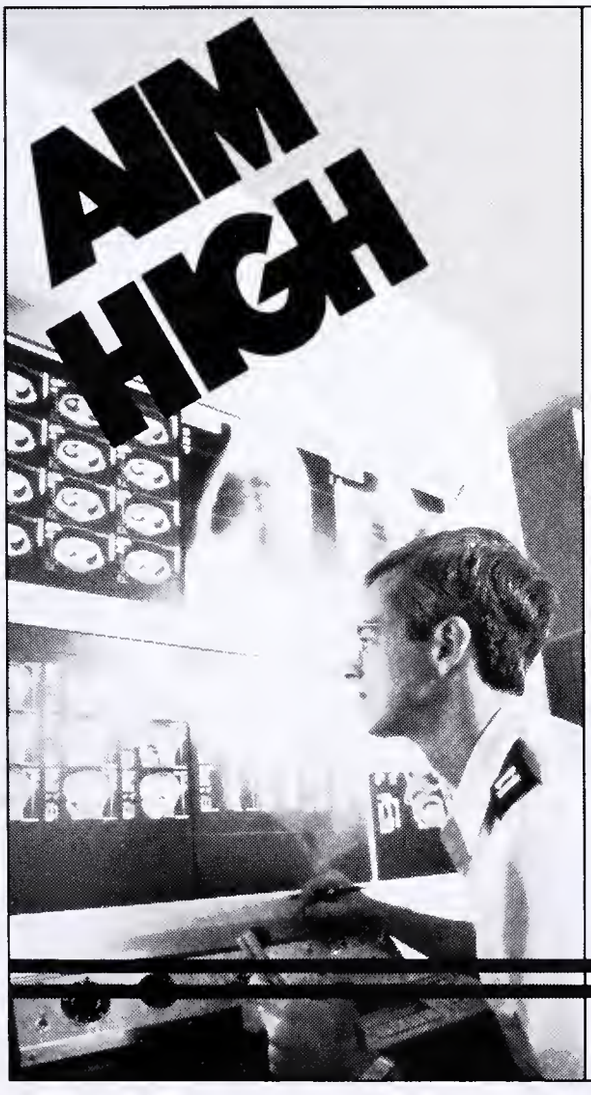
Ruth Sidel PhD, Professor of Sociology at Hunter College in New York, Leonard Stein MD, Professor of Psychiatry at Wisconsin and Hob Osterlund RN MS at Queen's Medical Center will address this compelling subject. This session would not have been possible without the help of Jan and Rick Carmichael.

The sunrises and sunsets have been great recently and the moon will be full. To paraphrase Matthew Arnold: "The moon lies fair upon the sea tonight, glimmering and vast out in the tranquil bay." Do not miss it. Being here should be much more than just being a student. Getting to know and appreciate Kauai will help to put it all into perspective. As a colleague of mine said to me: "How many would have come if this were in Tulsa?"

It is a great pleasure to have all of you here. Thank you so much for coming. I am confident that all of you will learn much of value here. Get to know one another. This will be a great time to exchange information and experiences.

"Health Matters" didn't just happen. There was a lot of planning, and there were expenses to meet. Most programs such as this are heavily underwritten by special interest groups, pharmaceutical houses, professional organizations, manufacturers of equipment. None of these were asked to sponsor this program.

We were fortunate to receive some financial support from The Kauai Rural Health Program, the County of Kauai, Island Care Health Plan, Wilcox Hospital and The Queen's Medical Center. Even with all of this, we have not covered all of our costs. I encourage our Kauai registrants who can afford it to contribute small amounts to our Foundation. Your help will enable us to meet our expenses and host similar programs in the future. ■



SPECIALIZE IN AIR FORCE MEDICINE.

Become the dedicated physician you want to be while serving your country in today's Air Force. Discover the tremendous benefits of Air Force medicine. Talk to an Air Force medical program manager about the quality lifestyle , quality benefits and 30 days of vacation with pay per year that are part of a medical career with the Air Force. Find out how to qualify. Call

USAF HEALTH PROFESSIONALS
TOLL FREE
1-800-423-USAF

AIR FORCE

PENSION HEADACHES?



GET THE CURE...

Are pension details giving you a headache? Call HICKS and get the cure. As third Party administrators of qualified retirement plans, HICKS offers complete support to accountants with consulting, documentation and administration for their clients.

Clients of HICKS enjoy complete discretion of trust assets while never having to worry about compliance issues or administration duties. With HICKS, all required Trust Accounting, Participant Allocations, Government Reporting (including IRS form 5500) and Plan Amendments are handled. And, with over 21 years of experience behind us, accountants enjoy the comfort of knowing their clients' plans are being handled by the best in the business!

So, if pension headaches are getting you down, call HICKS and get the cure!

*Self Trustee Plans
*Standardized Documents
*Plan Design and Amendment
*Actuarial Services
*In-House Continuing Education
*Training for Accountants
*Profit Sharing
*401(k) Profit Sharing
*Money Purchase Pension
*Target Benefit Pension
*Defined Benefit Pension
*125/Cafeteria Plans

HICKS. PENSION SERVICES

615 Piikoi Street • Suite 2020 • Honolulu HI 96814 • (808) 523-0144

TRUITT AFRICA



LEE TRUITT OFFERS THE GREATEST PHOTOGRAPHIC SAFARIS TO AFRICA.
CALL FOR FREE MONTHLY SLIDE PRESENTATION, SCHEDULE, OR PERSONAL SHOWING.
THE ULTIMATE EXPERIENCE. CALL LEE AT PACIFIC-AFRICAN CONNECTION, 524-5453.

Special from the American Medical Association

The attached letter was delivered to all Members of Congress on Friday, September 13, 1991. This letter was prepared to once again positively position the AMA on the AIDS issue in the face of escalating legislative activity and media coverage of the Kimberly Bergalis case. Much of the legislation under consideration is ill-advised, and we are urging Congress to let public health experts develop sound policy based on science and risk benefits. This is but one of many continuing battles on the AIDS front and it is important to establish our credibility by basing our policy on science rather than hysteria.

September, 1991

RE: AMA Policy on HIV-Infected Physicians

Dear Member of Congress:

This nation continues to struggle with the unresolved issues surrounding HIV infection and its routes of transmission, not all of which are clearly understood. Not surprisingly, there is widespread fear, sometimes bordering on hysteria, over the possibility that health-care workers conceivably, in the course of caring for patients, could unknowingly transmit the virus to their patients. The American Medical Association shares this concern along with the Centers for Disease Control. We are developing the most appropriate measures to prevent this from happening.

Physicians first and foremost should not do anything that puts their patients at risk of harm. Unfortunately, despite utilizing the most expert opinion and knowledge available, neither organization has been able yet to reach a definitive answer to all the questions being addressed. As you face the challenge of legislatively trying to protect the public, we want you to know exactly the position of the American Medical Association, and we hope you will carefully consider our concerns.

First, the facts. There is no evi-

dence so far of transmission of the HIV virus from a medical doctor to a patient. Indeed, the evidence is just the reverse, health-care workers have been infected by patients, although that is extremely rare. Numerous "look back" studies on patients who have been cared for by HIV-positive physicians fail to show any evidence of transmission. The widely reported case of the Florida dentist, Dr Acer, is an anomaly with no clear explanation. Nonetheless, it is a cause for concern, and it cannot be dismissed. Unfortunately, the facts end here. It is now up to all of us to deal rationally with a potential, but not a demonstrated, danger.

In January 1991, the AMA issued explicit guidelines addressing the issue of physicians doing invasive procedures during which the HIV virus conceivably could be transmitted to patients. In July, the CDC issued similar guidelines. The AMA fully supports the CDC position and is committed to working with it to further refine the uncertainties leading to greater patient confidence that he or she will not be exposed to any danger as we know it. One problem is the sizable body of expert opinion which maintains that even these restraints are contrary to a patient's interests in the long run.

There are now no protocols for the appropriate testing of physicians who do exposure-prone procedures or the enforcement of guidelines once a physician has been identified as HIV positive. Both the AMA and the CDC are in the process of developing these protocols. In the absence of any evidence that patients are being exposed to harm, there is no need for precipitous action either by the profession or the Congress. Medical and public health organizations need the time to evolve a patient-centered and scientifically defensible policy regarding identification of HIV-positive physicians and how they may continue to care for patients. This needs to be done expeditiously.

We are concerned that the Con-

(Continued on page 221) ➤



All about BUSINESS IN HAWAII

Get the full story of Hawaii's business in a tightly written compendium of its economy, cultures, achievements and challenges.

Volume Discounts

1-9 - $5.95 ea.
10-24 - $5.50 ea.
25-99 - $4.95 ea.
100-199 - $4.45 ea.
200+ - $3.95 ea.

Crossroads Press, Inc.
P.O. Box 833
Honolulu, HI 96808
(808) 521-0021

Enclosed is $_____ for_____ copies of the 1992 Edition of ***All About Business in Hawaii.***

Add $1.95 for 1st class postage.

❑ Visa ❑ Mastercard ❑ Discover Card

Card Number Exp. date

Signature (required for charge orders)

Name

Address

City State Zip

Cardiopulmonary exercise: A recently discovered secret of tai chi

Rock K T Ng, BS*

Every piece of literature or book about tai chi claims it to be the supreme martial art (soft style) and a therapeutic exercise. Nevertheless, none of the authors can describe scientifically how and why it works. Many people did not gain any health benefit in practicing tai chi and only very few people were able to apply its legendary secret power. During the last 10 years, the author thought he had discovered the secret in Hong Kong and brought it to Los Angeles. The secret lies in the fundamental movements of the body, called tai chi basic exercise routines. The entry level of the exercise has many similarities with medical treatments for respiratory illness[1, 2] and with walking exercise—the most recommended aerobic exercise for coronary artery disease[3,4, 5, 6].

Method

The exercise consists of 4 phases: Posture, swingingelbows, breathing and, again, swinging elbows.

1. Posture

A. Alignment

In a normal standing position, the muscles of the body are always in tension, aiding in balancing the body's weight. This tension increases oxygen consumption and decreases cardiac output.

The body can be considered to be in 3 layers, one on top of the other. The middle layer is the pelvis; above and below are the top and bottom layers respectively. The composite center of gravity should be in the midline of the body and also at the center of lhe pelvis.

This composite center of gravity in the middle layer should be supported evenly by both heels.

This position is called "neutral" which obviously keeps oxygen consumption and work load of the heart at a base level.

B. Dropping the shoulders

Both arms should hang freely from the shoulders, slight downward force at the elbows should pull down the shoulders. This movement is called "sinking elbows," and it can be done only when "neutral" is achieved, ie the whole arm is floppy.

The rib cage consequently is lowered and locked. This "tightens" or controls the central nervous system[6, 7, 8, 9]. It also forces one to concentrate on breathing with the diaphragm muscle. The other muscles in the body, at this point, should become totally relaxed; the arteries will become dilated.

2. Swinging elbows

All aerobic exercises involve unconscious swinging of the elbows[5, 7, 10]. The effectiveness depends on the degree of "sinking" of the elbows. One should maintain the slight downward force at the elbows and swing them gently forward and backward, not just the forearms. This should be done for 2 minutes. Oxygen consumption and cardiac output will increase rapidly, the result of the predominant supply of anaerobic energy; hence, the recommended 2 minutes only.

3. Breathing

After the anaerobic provided in the "alignment" is used up, the work load on the legs gradually increases and the energy supply is derived predominantly aerobically.

One must inhale through the nose and exhale through the mouth, using the voice with a high-pitched tone, "aah." Do it as slowly as possible. The breathing should utilize the diaphragm muscle. The vibration created by the high-pitched tone, "aah," will improve clearance of secretions and reduce mental tension. The diaphragmatic breathing will increase oxygenation and improve ventilation[1, 2, 7]. The swinging of the elbows should be stopped during this phase.

4. Swinging the elbows again

Repeat phase 2 for as long as you wish. It is recommended that the duration should be between 2 and 5 times what it was in phase 2. There should not be any shortness of breath after the completion of phase 3. The strategy of phase 4 is to increase the use of aerobic energy and exercise tolerance.

Results

The author has made many attempts to interest medical professionals, institutions and organizations to research this topic, but none were interested. The author does not have the facility nor the equipment available to measure the results with respect to heart rate, blood pressure, cardiac output and oxygen consumption, etc. The data below came as a result of observations by students and attendees in the workshop:

1. After walking the "Alignment," all participants could feel a weight on their legs that they had not experienced before.

2. During the exercise, all participants felt the cool and fresh air entering their lungs that they had never been aware of before.

3. All participants agreed there was a big increase in breathing capacity.

4. During phase 4, the hands of all the participants were

*Civil Engineer,
Hawaiian Dredging & Construction Company;
Master of tai chi
94-484 Opeha Street
Waipahu, Hl 96797
Received for publication January 20, 1992

warm or even hot, and the fingers were suffused with blood.

5. After the exercise routine, those who had backaches or knee aches before the workout claimed the pains were gone.

6. After one week of regular exercise, those who had high blood pressure claimed there was a drop of 10 to 15mm Hg systolic at rest.

7. After one week of regular exercise, all participants claimed that they had more energy in their daily work (documentation of this is planned in the future).

Discussions

Based on the method and results mentioned above, the exercise routine serves as a preventing and/or a rehabilitating exercise for both pulmonary and cardiovascular diseases. The magnitude of its effects goes beyond that of just walking.

The key to the success of this routine is "Alignment" and "Sinking elbow". It is very difficult for a person to adjust his/her own alignment and to sink elbows. The author has held a few workshops at the Star of the Sea Church on this exercise routine and the results have been satisfactory so far.

There is enough evidence to show that the reduction of risk factors (stress, hypertension, cholesterol) through aerobic exercise may influence the prognosis in coronary artery disease[1,6,10,11,12]. However, there is still no scientific evidence to prove that the effects of exercise can prolong life or prevent a repeat myocardial infarction. Because the size of the cohort in our study was too small, it is of limited significance at present. However, our program seems to be beneficial and our students and attendees do not drop-out, but rather they return for a repeat and re-evaluation. The exercise mentioned above may be a good start. It can be practiced anywhere, anytime. Above all, its effects can be experienced immediately after the exercise routine is finished.

REFERENCES

1. Irwin, Scott and Tecklin, Jan Stephen. *Cardiopulmonary physical therapy.* 2nd ed. St Louis, MO: CV Mosby;1990;187-200, 283-321.
2. Subak-Sharpe, Genell J and Warren, James V. *Breathing Easy.* New York, NY: Doubleday;1988;52,212-218.
3. Omish, Dean. *Reversing heart disease.* New York, NY: Random House;1990;324-330.
4. Yander, Gary and Burton, Kathy. *Walking Medicine.* New York, NY: McGraw-Hill;1990;143-199.
5. Zugibe, Frederick T. *14 days to a healthy heart.* New York, NY: Collier MacMillan;1986;18-47.
6. Khan, M I Gabriel. *Heart attacks, hypetension, and heart drugs.* Pennsylvania, Rodale Press;1986;65.
7. Wilmoth, Susan K. *Leading aerobic dance-exercise.* Champaign, IL. Human Kinetics Publisher;1986;25-31, 68-71.
8. McArdle, William D, Katch, Frank I and Katch, Victor L. *Exercise physiology.* 2nd ed. Philadelphia, PA: Lea & Febiger; 1986;570-575.
9. Gray, Henry. *Anatomy.* Philadelphia, PA: Running Press;1974; 379-382.
10. Pantano, James A. *Living with Angina.* New York, NY: Harper & Row;1990;120-123.
11. Cohn, Peter F and Cohn, Joan K. *Heart talk..* Boston, MA: Harcourt-Brace-Jovanovich;1987;103-119.
12. Alpen, Joseph S. *The heart attack handbook.* 2nd ed. Boston, MA: Little Brown;1985;18,33-35.

■

TEARS OF JOY

Thousands of patients have rung my door bell.
They come in for treatment ... even though they are well.
Well ... but yet troubled ... about some defect,
Hoping it's something ... that I can correct—

I never expected ... an effect so profound
Could result from such work (in a green cap and gown).
I never suspected cosmetic repair
Could effectively heal so much hidden despair!

I knew well the worth of repairing a victim
Of a terrible accident ... and I remembered the diction
"First do no harm", not by drugs nor by knife—
But we're also to look at one's quality of life ...

At how folks relate to the world where they live—
At a person's ability to receive and to give—
At physical barriers at the employment gate,
And stuff that impedes one's choice of a mate.

Could fixing a nose or giving a breast
Be as important ... as a cold in the chest?
Or curing sore throats or removing gall bladders ...
And a voice from inside said, "this work really matters".

Would giving a chin or fixing a face
Ever compete in the healing art's race?
Could making one feel he or she is **normal** at last
Ever compare with a leg in a cast?

The patients I've watched for twenty-five years
Who are moved to such joy that their eyes fill with tears
Just viewing a change in some "trivial" part—
It can't help but register deep in my heart.

Patients like those should never ever lose
The option to change, the option to choose—
The option to own the best self-esteem,
The option to become what they dared once to dream.

Would all those patients make the same choice
If well informed by a loud and clear voice?
Would they choose surgery with risks understood?
I've watched it so often, I **know** that **they would!**

Robert S. Flowers MD
October 5, 1991

Henry N. Yokoyama MD



Life in these parts . . .

A KUMU newscaster added new dimensions to our Waikiki landmark, San Souci Beach, by inadvertently calling it Sans Sushi Beach (Wot? No sushi?)

We followed a tawny grey Jaguar sportscar with the intriguing license plate: "GRR." We felt intimidated and kept a fair distance . . .

The ozone layer over Hawaii, especially Kauai, has thinned dramatically according to Bruce Miller, associated director of the UH's Sea Grant Program. Scientists had believed that tropical areas were fairly safe from significant ozone depletion, but they hadn't factored in the volume effects of the Mount Pinatubo eruption. The NASA report cites a 10% drop in density over the tropics allowing 20% more UV radiation penetration. Dermatologist Norman Goldstein feels there already is an epidemic of skin cancers in Hawaii due to the local outdoor lifestyle . . . and now this . . .

Doctor Abuse

A recent study by Public Citizen, a Washington-based public information research group shows that Hawaii ranks low for doctor abuse or negligence . . . Hawaii reported only two incidents between September and August '91 . . . From 1989 through 1991, the state's Regulated Industries Complaints office (RICO) investigated 13 cases of patient abuse and took displinary action against 9 physicians. Here are some incidents reported to RICO: A woman began a personal relationship with her psychiatrist. When the relationship ended, she commited suicide with an insulin overdose. The three heirs sued and collected $100,000 settlement.

Three years ago, a teenager was operated on at a Honolulu hospital for a fractured left arm. His radial nerve was accidentally severed and subsequently repaired. The doctor's malpractice insurers paid $35,000 last year.

A doctor improperly prescribed anesthesia for two "Tattoo artists" who did cosmetic tattoos to eyelids and eyebrows. The doctor's prescribing was limited for 6 months, he was fined $1,000, and paid $1,875 in hearing costs.

A doctor had his license revoked after conviction on 8 counts of Medicaid fraud. Another doctor had his license revoked after he was convicted of promoting a dangerous drug. A criminal court sentenced him to 5 years probation.

A Honolulu doctor admitted to a substance abuse problem and surrendered his federal and state authorization to prescribe controlled substances. RICO ordered that his practice be monitored for one year by a peer . . .

The Hawaii license of a physician was revoked after Nebraska reported that he had been disciplined for inappropriate sexual conduct toward male juvenile patients.

Lawyer jokes . . .

(We attended the joint retirement party of retiring Supreme Court Justices Hayashi and Padget)

Frank Padget told this joke: "The lawyer got to the Pearly Gates . . . St Peter said, "We have a 3 month waiting period for all lawyers while we review their cases . . . The lawyer, impatient as typical of all lawyers, started to protest vigorously . . . St Peter suggested, "Why don't you try down below . . . You might get in without any waiting period." Lawyer: "Why the discrepancy?" "Most of your fellow judges and lawyers are down there and they will be happy to vouch for you."

Frank continued . . . "But in reality, by the time the case is processed by an overburdened law clerk who reviews the case, and the case is placed on the calendar . . . and the process of jury selection is conducted . . . and a mistrial is declared because the jury member spoke to a news reporter . . . months pass by . . . The case is again reviewed by a law clerk, the case placed on the calender and if everything goes well, the case finally goes to court, perhaps 9 months later . . . "

Professional Moves

June:

Ivan Szathmary, board-certified ER physician joined the Kauai Medical Group. KMG now has 6 physicians in its emergency medicine dept serving Wilcox Memorial.

July:

ENT Ron Peroff left Honolulu Medical Group and opened his solo practice at Queen's POB II, Ste 307.

OB/Gyn Ken Perske Jr (formerly with Straub Hawaii Kai Clinic) joined Murray Berger, Neal Winn, Ronald Berman and Chris Miura at Kapiolani Medical Center POB, Ste 1180.

Dermatologist Carla J Nip-Sakamoto associated with Allan Izumi at Queen's POB I, Ste 412.

OB/Gyn Harry Yoshino joined Natori, Teruya, Tanoue MDs Inc at 2525 King, Ste 311 and 98-211 Pali Momi, Ste 811.

Internist James Hirasa retired and Ron Teramoto will assume his practice at Aiea Medical Bldg Rm 109.

Peter Larm MD Inc relocated to 1441 Kapiolani Bldg Rm 608.

Orthopod Edmund Lum announced his retirement effective June 30. His announcement contained the following message: "Caring for patients has been a great source of satisfaction and pleasure. I thank everyone for the privilege, and the kindness extended to me."

Status TBC in Hawaii

American Lung Association president Lee Reichmann recommended close surveillance of Tbc patients to make sure they take their pills . . . Treatment of drug-resistant Tbc strains can cost $120,000 per patient. Azucena Ignacio, State Health Dept Tuberculosis Branch chief reports that 3% of the state's 201 Tbc cases do not respond. Most of Hawaii's cases are immigrants from Southeast Asia. Hawaii, with 17.2 cases per 100,000 population, is second highest next to New York City. Azucena says the local situation can become explosive if AIDS patients get drug-resistant strains. Reichmann praised the State's overall Tbc program but says it lacks the resources for effective monitoring . . . The State's $1.2 million program screens 28,000 people, X-rays 18,000 people and treats 200 active cases. Worldwide, Tbc kills 3 million people annually according to Reichmann . . .

Next year GTE Hawaiian Tel plans to install undersea fiberoptic cables between the four major islands. The cables will allow Neighbor Island physicians to transmit high quality X-rays and CT scans to Honolulu for second opinions . . .

Mac nuts . . .

David Curb UH professor of medicine and principle investigator for the Honolulu

Heart Program at KMC conducted a pilot study last year on macadamia nuts. He reports: "We got a surprise . . . People did tolerate the nuts. They didn't seem to gain weight and there's an indication of a positive effect on body fats." Macadamia nuts contain palmitoleic acid, a mono-unsaturated fatty acid that fights cholesterol and enables the body to burn fats. The State legislature recently appropriated $150,000 for more research provided the federal government matches the amount. Big Island Senator Andy Levin was ecstatic: "This has the potential to make macadamia nuts the health food for the 20th and 21st centuries. We'll have an enormous marketing advantage if the research pays off."

Honored, elected and appointed

Affable endocrinologist Ralph Beddow, 70, who retired as Straub Chief of Medicine in 1990 was named St Louis School's Outstanding Alumnus of 1992 and also was elected president of Waialae Country Club (where he used to be run off the greens for stealing golf balls as a kid). Ralph is still on the board of the Waianae Coast Comprehensive Health Center and supervises interns at QMC. He was formerly chair of the St Louis board of trustees and State Board of Health chair. Ralph taught at the John A Burns School of Medicine from 1966 to 1990.

Hawaii pediatrician Calvin Sia was awarded the 1992 Sir James Carreras Award by Variety Club International. Cal received the award and a check for $10,000 at the Annual Heart Awards Banquet on May 19 in New York. Last year, Cal received the C. Henry Kempe Memorial Award for his contributions to the prevention of child abuse and neglect. He was the first Hawaii resident to receive the 1992 Abraham Jacobi Award from the American Academy of Pediatricians. In 1990, Cal was awarded a Certificate of Merit for children's advocacy by Contemporary Pediatrics . . .

Obituaries in brief

Retired surgeon James Grant Marnie died Wed June 24 at age 74 . . .

Sportsmen

Ralph Hale is chair of the UH Med School OB/Gyn Dept and team physician for the UH women sports program. Ralph has been on the 11-member Olympic Games Preparation Committee for 8 years and is looking to Atlanta for the 1996 Olympics. Ralph became involved in Olympic administration through water polo. He founded the Hawaii Invitational Water Polo Tournament in 1968 and was US Water Polo president from 1984 to 1988. Ralph went to his first Olympics in 1984 as a member of the water polo volunteer staff. He is vice chair of the National Govern-

Hors de Combat

In May, Roger Slater, the only neurosurgeon on Maui for 8 years, requested a voluntary leave of absence from neurosurgery when Maui Memorial did not obtain certain angiographic equipment as promised. A replacement is expected in September. Meanwhile all neurosurgical cases have to be sent to Honolulu.

A former bar hostess, now living in Chicago, had complications from breast implant surgery in 1986 and sued ENT and cosmetic surgeon John McCurdy Jr and his nurse assistant. A California plastic surgeon Ralph Lassa testified that John was not a plastic surgeon and only plastic surgeons had the special skills to do breast surgery. John is certified by the American Board of Cosmetic Surgeons, but the Californian called the board an "unrecognized, self-designing board." (June 17,1992)

Physicians speak up . . .

re Hawaiian Rights Movement

Internist Kekuni Blaisdell argues that the term "ceded lands" (used to describe government lands passed hand to hand from the Hawaiian Monarchy to the Republic of Hawaii, to the United States upon annexation and back to the State of Hawaii upon statehood) is misleading and confusing. "Why not just say 'stolen lands'? Kekuni argues that "Hawaiian lands—like the kingdom itself—were stolen, and since the original act was illegitimate, then all that happened since (ie, annexation, creation of the Hawaiian Homes Program, statehood) is equally illegitimate." (Jerry Burris, *Honolulu Advertiser* city editor 5/24/92)

Mainland News

The 289,000-member AMA, a staunch defender of traditional pay-as-you-go free-market health care has finally embraced HMOs as having some advantages over traditional health care . . . AMA executive VP James Todd spoke at the annual meeting of the Group Health Association of America and reported that "HMOs were leaders in educating patients, helping hold down health costs and in giving patients more health care options."

No-Fault Medical Malpractice Insurance

HMSA president Marvin Hall says that a "No-Fault" malpractice insurance will save 10% of the $3 billion Hawaii spends on health care and State Health Dept director John Lewin says, "In essence, no-fault is the way to go." Marvin Hall's research shows that the overall cost of health care is inflated 10% to 25% by physicians who order extra X-rays, lab tests and procedures to protect themselves from lawsuits. A no-fault insurance pays the victims of malpractice for the cost of care and lost work time but eliminates fault finding except in extreme situations of willful harm or gross negligence. But Robert Toyofuku, executive director of Hawaii Academy of Plantiffs' attorneys and Jim Shon, chair of the House Health Committee disagree. Bob asks, "Is defensive medicine good medicine?" Jim is uncomfortable with any system that doesn't hold doctors accountable. Becky Kendro, HMA assistant executive director says the AMA has endorsed the idea of an alternative fault-based system in which the injured party could waive the right to sue and receive payments from the system. Jack Lewin says the no-fault system should use the split-system approach and be combined with limits on lawyer fees and limits on pain and suffering awards.

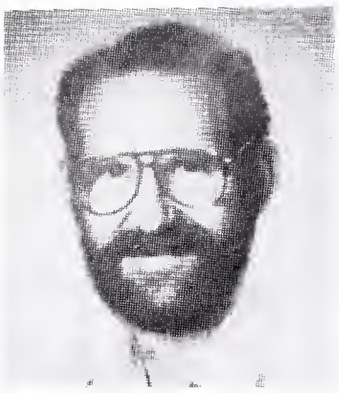
Jim Nishi stories . . .

Jim's Waianae friends stopped going fishing a year ago . . . It seems that they had gone bottom-fishing and had caught a fine mess of fish. They cleaned the fish for supper and threw some leftovers to their family cats . . . All six cats dropped dead . . . The same Waianae boys tried their ciguatera test kits on fresh hamburger meat and they turned positive . . . The moral of the story is: use cats when in doubt . . . (Our fondest apologies to Dr Hokama who invented the test kits and who is responsible for the distribution of free test kits).

Oncology conference

Case presentations were a 65 and a 75-year old male with gastric Ca and nodal met . . . Moderator Glenn Kokame waxed philosophical: "At Kuakini, we see an average of a case a week or about 50 cases a year with a

(Continued) ➤



Retirement Plans
•
Investment Management
Consulting
•
Life and Disability
Insurance
•
Charitable Remainder
Trusts

mel r. hertz
MBA, CFP
Certified Financial Planner

Pacific Tower, Suite 2800
1001 Bishop Street
Honolulu, Hawaii 96813
(808) 599-4504

derand

Securities Offered Through IFG Network Securities, Inc. (IFG), Members NASD and SIPC. Financial Planning Services Through Associated Financial Planners, Inc. (AFP), Registered Investment Adviser. mel r hertz is a registered principal of IFG and a registered representative of its affiliate AFP, both of which are otherwise unaffiliated with derand.

"Finally, a Business Hotel in Downtown Honolulu!"

Suites
$95-$150

EXECUTIVE CENTRE

1088 Bishop Street
Honolulu, Hawaii 96813
539-3000

You can help us raise the colorectal cancer cure rate.

When detected early, the cure rate for colorectal cancer is very high. That's why we urge regular checkups for men and women 50 and over.

Warning signs are a change in bowel habits, blood in the stool.

Your doctor can perform the digital and procto exams, and you take care of the stool blood test at home.

Checkup Guidelines for men and women over 50 without symptoms:
- digital exam annually
- stool blood test annually
- procto exam every 3 to 5 years after 2 negative tests 1 year apart.

No one faces cancer alone.

AMERICAN CANCER SOCIETY®

(Continued from page 219)

25% cure rate. KMC sees more cases than MD Anderson . . .

Pathologist Grant Stemmerman commented: "We are more interested in familiar forms of gastric Ca . . . Out of 242 index cases, we have 16 families with 3 or more cases. One family had 4 gastric and 4 colon Ca's . . . maybe some genetic association."

Oncological surgeon Scott Hundahl advised: "If you have gastric Ca in the family, marry someone whose family doesn't."

Glenn asked, "Are there any blood tests to detect gastric Ca?"

Stemmy: "The PGI and PGII ratio has 95% sensitivity and 30% specificity . . . H. Pyloris infection . . . 94% antibody titer in Ca and 74% in control . . . But the strongest predictor is a smoking history . . . Recent studies in Italy show that Campylobacter toxin stimulates cell replication and the rate of Ca growth . . ."

After a moment of reflection, Stemmy summed up the factors for gastric Ca as being associated with smoking, a history of high acid output with a propensity for ulcer and with hiatal hernias...

Jokes we thought funny . . .

A young man went into a drugstore to shop for condoms for the first time. The druggist suggested the economy pack—three for a dollar. The kid agreed. The druggist rang up the sale. "That'll be one dollar and eight cents." "You said three for a dollar," the kid complained. "What's the eight cents for?" "Tax," replied the druggist. This confused the kid even more. He finally asked, "Don't they stay on by themselves?" (*Playboy,* Jul 92 Party Jokes)

The mothers of four priests were boasting of their sons' accomplishments.

"My son is a monsignor," said the first. "When he enters a room, people say, 'Hello, Monsignor'."

"Well, my son is a bishop," added the second. "When he enters a room, people say, 'Hello, Your Excellency'!"

"Ah, but mine is a cardinal," said the third. "When he enters a room, people say, 'Hello, Your Eminence'."

The fourth woman thought for a moment. "My son is six-foot-ten and three hundred pounds!" she proudly exclaimed, "When he enters a room, people say, 'Oh, my God'!"

(Another *Playboy* Party Joke) ■

(Continued from page 215)

gress, without a rational basis, appears ready to legislate restrictions on medical activities where there is no evidence of risk. Fear of the unknown is no justification for legislation that may or may not be in the best interests of either patients or physicians. We urge you in the strongest terms not to succumb to impulse or hysteria, but allow the medical community to develop the standards by which the public will be best protected. Let me reiterate in the strongest terms possible, the American Medical Association and the physicians of this country hold their patients' welfare dear above everything else. What we ask is that the Congress rely on the best scientific information available in developing sound policies to deal with this disease.

Sincerely,
s/James S Todd MD
Exeuctive Vice President

■

First, We Listen.



Before we do anything for you, we listen to you. Because until we identify your exact needs and desires, we really can't do the job for you the way it needs to be done. To say we work closely with you is a bit of an understatement. But that's okay. We don't mind being quiet. It's our secret to good listening.

Showroom hours 10 to 5. Saturdays 9 to 4. License Number BC-5555.

Karen Nakamura, CGR, and to her right, Audrey Tanaka, ASID

REMODELING SPECIALISTS *Hawaii*

The General Contractor
Who Speaks Interior Design.
Call 735-9844. Fax 734-8351.

3160 Waialae Avenue
Honolulu, Hawaii 96816
Division of Wallpaper Hawaii, Ltd

Can you get all of these discounted banking services?

Personal Checking Plan

TellerPhone® Home Banking and Automatic Bill Payment

Reduced Rate Financing

Discounted Credit Card Merchant Services

Asset Management and Financial Planning

And a second opinion, too?

Your Own Personal Banker

Yes you can.

Simply call Mark Taylor at 525-8824 during normal business hours for more information. (Neighbor islands call collect.)

First Hawaiian Bank



BIOHAZARD

PERSONAL PRECAUTIONARY APPAREL

YOUNG LAUNDRY & DRY CLEANING

834-7560

"Complete Rental Service for the Healthcare Professional"

Tuberculosis: A personal commentary

Gladys C Fryer MD*

Tuberculosis is another of those diseases from which our attention has been diverted in recent decades, and which may now come back to plague us. I refer to the timely warning in Dr Frankel's report and Dr Reppun's editorial comment in the Hawaii Medical Journal *of December 1991.*

As a child in England, I remember seeing a little boy on the beach with his family. He could not walk, and he had a sinus over his hip joint. We were allowed only within shouting distance. I was told he had tuberculosis of the hip; this must have been bovine tuberculosis, a variety that disappeared for many years but we are now warned may be returning[1].

With the advent of antibiotics after World War II, and especially Streptomycin, it seems our guard was lowered—TB could be treated certainly, instead of uncertainly, by 6 months or more in a sanatorium. At present, however, Streptomycin has become unavailable in the U.S., and PAS (para-amino-salicylic acid) temporarily so[2].

In Melbourne, Australia, where I studied, all medical students with negative Tb skin tests were given BCG (Bacille Calmette-Guerain) which blocks *M. tuberculosis* infection and gives the recipient a positive Tb skin reaction. (BCG also is widely used in Scandinavian countries. It has not been used in the United States, where the conversion of the skin test is valued as a diagnostic factor.)

In the 1950s and 1960s, Dr Malcolm Bolton was medical officer to aborigines in Malaya. These numbered about 50,000 people in 3 main tribes; some, the Negritos, were living in very remote jungle areas. Most could be reached only by helicopter, and Bolton himself assisted in clearing jungle landing sites for Royal Australian Air Force helicopters to land. It took 2 helicopters to carry portable X-ray equipment and to take sick aborigines back to the Rumah Sakit Orang Asli (aboriginal hospital).

At each jungle visit all aborigines who had not been seen before were given a Tb skin test, BCG inoculation, and a chest X-ray. Simultaneous administration of BCG covered individuals who did not come out of the jungle for reading of the skin test.

The graph of the decrease in incidence of Tb in aborigines during Bolton's care was spectacular. Dr Bolton almost certainly saved this race from extinction.

In order to obtain a government job in Malaya (including that of a teacher), it was necessary to have a chest X-ray negative for Tb. For this reason it was very common for a partial or complete pulmonary lobectomy to be performed on a patient with quiescent and localized disease.

*Gladys C Fryer MD
(formerly of Honolulu)
PO Box 428
Mesilla, NM 88046-0428

I was privileged to be invited to attend the weekly pathology sessions at the Lady Templer Hospital conducted on surgical specimens by Dr J B Duguid, Professor*Emeritus* of the University of Durham—a heaven-sent education.

Despite tuberculosis being so common, a middle-aged Chinese woman was once referred to me for evaluation of her heart disease because of an episode of hemoptysis. A chest X-ray showed classic lesions of Tb, which we were able to treat. She had no cardia lesion.

Considering this background, while I was living and working in Hawaii, I was saddened when the Health Department had to discontinue its mobile chest X-ray service some years ago. It is to be hoped that this public health service may possibly be resumed.

Tuberculosis is an old scourge that is becoming a new scourge. Though it occurs particularly often in patients with impaired immune systems such as in AIDS patients, the age-old pathogenic mechanisms must still be suspected, eg the young baby with tuberculous meningitis acquired from the grandfather who has a chronic productive cough.

The *Mycobacteria* are intensely interesting. In the work of the Research Unit at Sungei Buloh Leprosarium in Malaya, it was discovered that patients with *M. leprae* infections were more susceptible to other *Mycobacteria*, eg *M. tuberculosis* and/or *M. ulcerans*.[3] Perhaps there is also a special association between these *Mycobacteria* and HIV infection since we now see severe infections with the a typical *Mycobacteria* in such patients, eg fulminating infections with *M. avium cellulare*.

In Africa, tuberculosis is one of the most common and severe diseases associated with HIV infection. The World Health Organization now recommends administration of BCG at birth to infants in Rwanda and other countries where the risk of TB is high[4]. This practice has been found to be effective; side effects seldom occur. There is a possibility that vaccinating HIV-infected infants with BCG may also protect against atypical *Mycobacteria*.

One can argue for consideration of more widespread administration of BCG in the U.S. to medical staff, newborn infants of AIDS mothers, contacts of AIDS patients and to intravenous drug users. Extension even to include Mantoux-negative individuals may eventually be desirable.

Hawaii has led the country in other health matters; perhaps it could do so in this regard also!

REFERENCES

1. Fanning, A and Edwards, S. Mycobacterium bovis infection in human beings in contact with elk (Cervus elaphus) in Alberta, Canada. *Lancet.* 1991;338,1253-55.
2. *MMWR.* 1991;40:41;715.
3. JHS Pettit. Personal communication.
4. BCG Vaccination & Pediatric HIV Infection-Rwanda. *MMWR.* 1991; 40:48.

■

[Since Dr Fryer submitted the tuberculosis article for publication in the Journal, *we have received the following from Dr Ignacio of the DoH and find it appropriate for inclusion herewith/Ed]*

Senate Bill 3306 was passed by the Hawaii State Legislature and was signed into law by Governor Waihee on June 18, 1992. The law amends the HIV confidentiality statute and permits physicians in Hawaii to report HIV positivity to the Department of Health (DoH) in:

(1) Persons with tuberculosis.

(2) Persons with a tuberculin skin test of ≥5mm induration by Mantoux technique.

Physicians may wish to report their co-infected patients to the DoH for consultation on patient management or to ensure that the patient is not lost to follow-up.

DoH record-keeping procedures have been modified to ensure that the identity of co-infected patients is protected. Physicians who choose to report will be requested to fill out a special case report form. This form is in the process of being printed and will be mailed to every licensed physician in the State.

Physicians who prefer to report by phone may call 832-6000. This is a private line at the DoH which will only be answered by the TB nurse consultant or the TB registry clerk. No other DoH personnel will be allowed to take case reports.

Should physicians have any questions regarding the medical management of their patients, they should call the Chest Clinic Physicians of the Tuberculosis Program at 832-5731. Reports of co-infected persons should be directed to the TB nurse consultant or the TB registry clerk. They can be reached at the same telephone number.

Azucema Ignacio MD
DoH/Tuberculosis Control

A Positive Point About Breast Cancer.

Now we can see it before you can feel it. When it's no bigger than the dot on this page.

And when it's 90% curable. With the best chance of saving the breast.

The trick is catching it early. And that's exactly what a mammogram can do.

A mammogram is a simple x-ray that's simply the best news yet for detecting breast cancer. And saving lives.

If you're over 35, ask your doctor about mammography.

Give yourself the chance of a lifetime.™

AMERICAN CANCER SOCIETY®

CLASSIFIED NOTICES

To place a Classified Notice, MEMBERS, please call Association Office at 536-7702. NON-MEMBERS, please call Leilani at 521-0021. 4 line min., approx. 5 words per line. Payment must accompany order.

BUSINESS OPPORTUNITY

MEDICAL CLINIC FOR SALE

Internal Medicine Primary Care Practice. Located at the Aiea Medical Bldg. Fully equipped & fully furn. Estab. 15 yrs. 25 patients/day. 3 exam rms., consultation rm., business/billing office, recep.area, complete in-office lab. Office approx. 960 sf. Terms negotiable. Serious inquiries & offers call: 528-2102; 622-7511 or write MEDICAL CLINIC, P.O. Box 2167, Hon., HI 96805

EMPLOYMENT OPPORTUNITY

FP/GP

For resort medical office. Send CV to Dr. Ban Azman, West Maui Healthcare Center, Kaanapali Maui, HI 96761 or phone 1-808-667-9721

POSITIONS AVAILABLE

Physician Placement Hawaii has openings for physicians & other medical professionals all across the U.S. Mainland as well as here in Hawaii. We also have candidates interested in a Hawaii position. Call Earl Pajari at 395-7099.

INVESTMENT OPPORTUNITY

SOUTH PACIFIC

Estates, resorts, islands and opportunities in Fiji, Cook Islands, French Polynesia and Vanuatu. Tax havens to yachting heavens, investments to lifestyles. Over $300 million in inventory.

PACIFIC ISLAND INVESTMENTS
(808) 883-8000 Fax: (808) 883-8838

OFFICES

MAUI

MAUI CLINIC BUILDING

* 728 Sq. Ft. Office
* X-Ray and Lab on Site
* Renovation Allowances
* Rental Allowance during Renovation
* Ample Parking
* 14 other Quality Medical Tenants in Bldg.

OPM Call John Sullivan
OIHANA PROPERTY MANAGEMENT 244-7684

OFFICE SERVICES

LOWER YOUR OVERHEAD

Nice Conf. Rms., & Offices Avail. Hourly and Full time, Receptionist, Tele. Ans. in YOUR Name, Much More, EXCELLENT IMAGE.

CallHEADQUARTES COMPANIES 522-9494

REAL ESTATE

MANOA

Best street. 4 bd., 3 ba. Divorce forces sale. Gaylyn Li-Ma 530-1266 (pager) 946-0646

SERVICES

LOCUM TENENS PROVIDED

Internal Medicine and Family Practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS AVAILABLE

Family Practice, Pediatrics, Urgent Care.
No agency fees. Deal direct. 923-2981.

Maka O Ke Kauka

Russell T. Stodd MD

The only fence against the world is a thorough knowledge of it.

What has the AMA done for you lately? For the moment, forget the excellent group insurance plans, ignore the peerless medical publications, omit the comprehensive reference library, overlook the mortgage loan program, neglect the investment counseling; in fact, forget all the services, except money. Dollars—that come into your pocket. The AMA, with its vigorous Washington lobbying, its confrontation with HCFA, its orchestrated campaign to encourage physicians to directly contact politicians and HCFA (producing over 100,000 communications), succeeded in adding back $10 million which Dr. Gail Wilensky and associates had cut from the Medicare budget. With AMA dues fixed at $400 a year, that savings amounted to 40 years' of membership for all 600,000 of America's practicing physicians. This was accomplished by 45% of America's doctors who make up the body of the AMA. So, send a thank you note to AMA headquarters in Chicago; or better yet, if you are not a member, enroll in the struggle to keep America's doctors free. Another incidental fact is that AMA dues for 1993 will remain at $400 for the fifth consecutive year without increase. Cut it anyway you wish, it is a tremendous bargain.

Every cause produces more than one effect.

The sign in the park says, "Keep off the Grass," but downeast in Maine, the legislature passed a law in April legalizing marijuana for medicinal purposes. The bill permits physicians to prescribe marijuana for treatment of glaucoma and alleviation of the side effects of chemotherapy. The Maine Society of Eye Physicians and Surgeons testified against the legislation: "There is no scientifically verifiable evidence that the use of marijuana is safe and effective in the treatment of glaucoma." The governor put the bill in his pocket instead of signing it, so it remains in limbo.

Put all your eggs in one basket and—watch that basket!

The federal government, in its abiding desire to invert common sense, has ruled that doctors cannot jointly invest in something they understand—however wise and ethical they might be—they might realize a profit! Hence, 20 doctors in southwestern Idaho have pulled out of an MRI center formed in 1986, for fear they might be in violation of the so-called "safe harbor" inspector general rules. Sixty percent of the referrals came from noninvestors, and Blue Cross of Idaho said there was no evidence the machines are being overused. However, to keep your skirts clean, put your investment capital into real estate schemes, stock flyers, undersea petroleum wells, or some other business you know nothing about. You might lose your retirement savings, but there will be no "safe harbor" violation.

There is nothing new except what is forgotten. What do you know . . . for sure. . . anyway.

For at least 8 years, and perhaps closer to 10 years, ophthalmologists have known that corticosteroids do not alter the ultimate outcome of optic neuritis. How comforting that now the *New England Journal of Medicine* published a "new study" that concluded that such drugs have no role in the treatment of optic neuritis. Louis Sullivan MD, valiant, intrepid leader of HHS, was quoted as saying: "This is a very significant finding. It highlights the critical importance of conducting research on the effectiveness of commonly used therapies that have not been fully and rigorously scientifically evaluated." Right on, ride on, write on, Doc! Now let's talk about family planning.

Whatever plan one makes, there is a hidden difficulty somewhere.

In the field of "new and improved," laparoscopic cholecystectomy is finding some critics. Even some surgeons are wondering about the rapid and widespread dissemination of new surgical techniques. Enthusiasm abounds, and doctors and patients are ecstatic—if all goes well, that is. But bile duct tears have a considerably higher frequency and there has been an unusual incidence of strange injuries—such as of the aorta, bladder, liver, intestines—injuries virtually unheard of with open cholecystectomy. Unfortunately, about half of the complications are undetected at the time of surgery. An additional paradox is that health expenditures for the procedure are greater due to higher surgeon fees, longer anesthesia time, and expensive new equipment. Of course, in ophthalmic surgery we have no such parallels—or do we?

No man can climb out beyond the limits of his own character.

Leaving behind a trail of battered and intimidated physicians, and at least one doctor suicide, lovable Richard Kusserow is moving to the private sector. Without the overwhelming power of the omnipotent HCFA behind him, Mr. Kusserow will no doubt be a congenial, outgoing, harmonious representative of Strategic Management Associates, a health care consulting firm. Roth a ruck, Mr. K. Don't call us. We'll call you.

Addenda.

▲ A retrospective review revealed that ophthalmologists had the highest incidence of needle-stick injuries among physicians.

▲ Whatever happens to you, it previously will have happened to everyone you know, only more so.

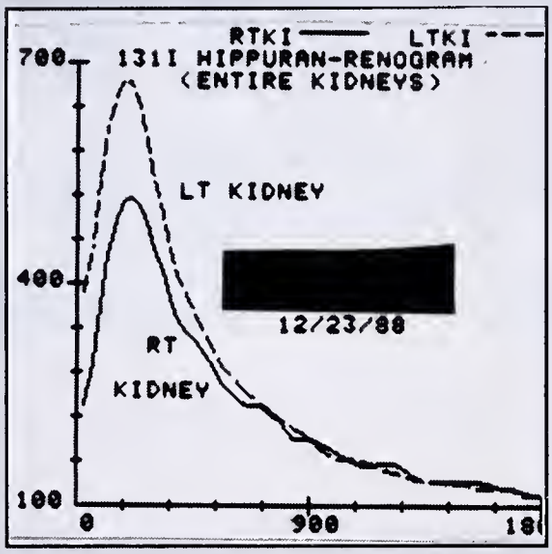
Aloha, and keep the faith.

rts ■

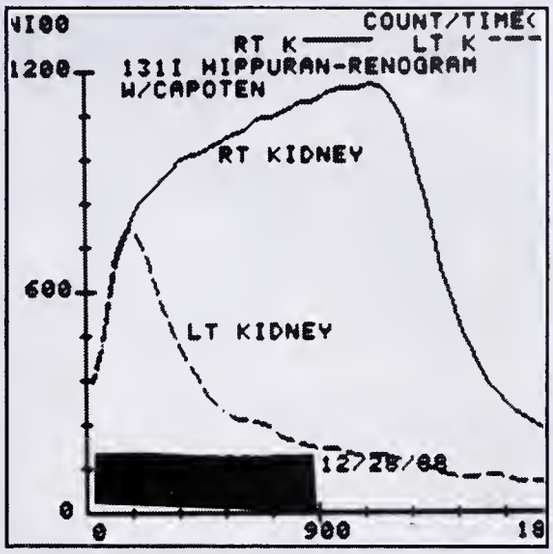
Nuclear Medicine Teaching File

CAPTOPRIL RENOGRAM IN RENOVASCULAR HYPERTENSION

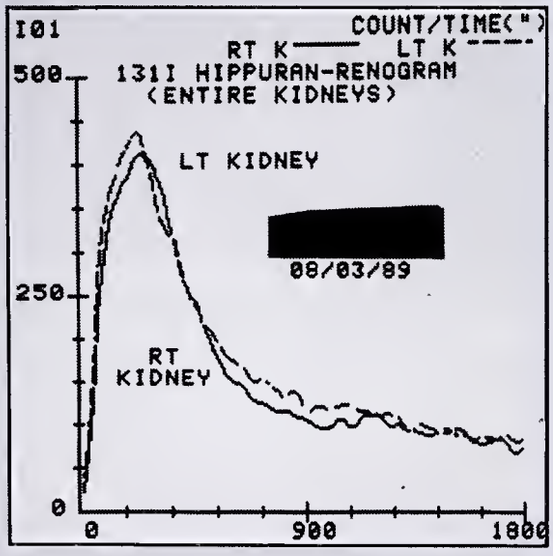
Clinical History: 43 year old female with headache, accelerating hypertension, and mild azotemia.



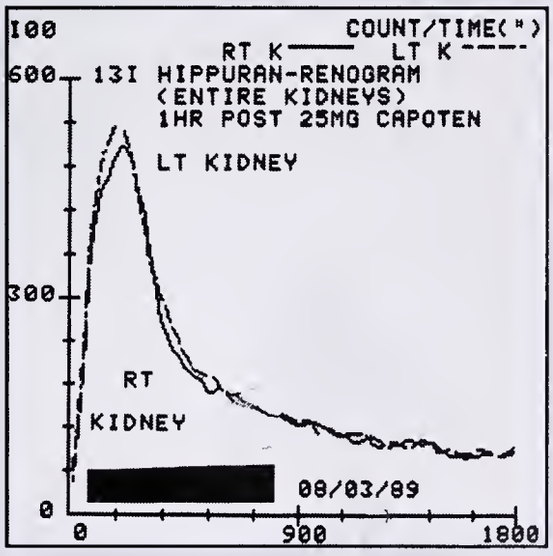
1. Baseline renogram without captopril shows slightly reduced function and mild delay in urinary clearance on the right.



2. Captopril renogram prior to angioplasty. Note exaggerated delay in urinary clearance induced by captopril on the right, consistent with renovascular hypertension. Arteriography showed severe fibromuscular dysplasia.



3. Renogram without captopril following angioplasty of the right renal artery. Note symmetrical kidney function.



4. Captopril renogram after angioplasty shows no further evidence for renovascular hypertension.

Nuclear Medicine – Non-invasive, physiologic imaging

PACIFIC RADIOPHARMACY, LTD.

A JOINT VENTURE OF
QUEEN'S MEDICAL CENTER, KUAKINI, SAINT FRANCIS,
STRAUB AND THE HONOLULU MEDICAL GROUP

EXAMINE US CLOSELY

You shouldn't have to play a waiting game with your bank. And you don't, at American Savings Bank.

When we say that medical practices can count on us for timely financing, count on it. Because we know that for small and mid-size businesses, sooner isn't just better, it's critical.



When we say that you can expect personalized attention from our corporate banking people, expect it. So you can focus your attention on your growing practice.

When we say that you can turn to us for competitive rates, we're not just turning a phrase. You'll also find that we can be more creative, more flexible. So you can respond to opportunities more quickly.

Let us help you take your business in the right direction. Call our Corporate Banking Department at 539-7242.

American Savings Bank, your small business experts.

American Savings Bank FSB

An HEI Company

EQUAL HOUSING OPPORTUNITY LENDER

MEMBER FDIC

SEPTEMBER 1992
Vol. 51, No. 9
ISSN: 0017-8594

Hawaii Medical Journal

Journals
W1
HA
968

CONTENTS

HMA COUNCIL HIGHLIGHTS 230

EDITORIALS
Aloha, Kasa 230
J I Frederick Reppun MD

Obituary: Sadaichi Kasamoto 232

ACRAL LENTIGINOUS MELANOMA: CASE STUDIES FROM KAUAI 235
Jonathan Charles MD
David J Elpern MD

RACE, ETHNICITY AND BIRTH WEIGHT: HAWAII 1983 TO 1986 235
David H Crowell PhD
Robert I McGee PhD
Dexter Deto MD
Santosh D Sharma MD
Peter Dunn-Rankin EdD

EDITORIAL
Prescription drugs for Indigents 249
J I Frederick Reppun MD

MAKA O KE KAUKA 250

CLASSIFIED 256

Hawaii Medical Journal
UCSF LIBRARY
Received on: 11-03-92

CALIFORNIA-SF
ARY
RIALS DEPT, BOX 0840
30 PARNASSUS AVE
SAN FRAN, CA 94143-0840

HAWAII MEDICAL ASSOCIATION 1856

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively
Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

Hawaii Medical Journal

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor J I FREDERICK REPPUN MD
Founding Editor: HARRY L ARNOLD JR MD
News Editor HENRY N YOKOYAMA MD
Contributing Editors: STEPHEN R P K BRADY MD, FRANCIS H FUKUNAGA MD
Editorial Assistant: SUSANNE WEEKS
Publisher: STEPHEN LENT

Editorial Board
NORMAN GOLDSTEIN MD
ROBERT T S JIM MD
JAMES LUMENG MD
FRANCIS D PIEN MD

Publications Committee: MYRON E SHIRASU MD (Commissioner)
HENRY N YOKOYAMA MD (Chair)
ERLAINE BELLO MD, STEPHEN R P K BRADY MD, NADINE BRUCE MD, NATHANIEL PH CHING MD, OSAMU FUKUYAMA MD, ROBERT C GALAGAN MD, FRED GILBERT JR MD, ROBERT HOLLISON MD, AMOD JAIN MD, ROBERT T S JIM MD, JOHN H C KIM MD, H LORRIN LAU MD, JAMES LUMENG MD, BAL RAJ MEHTA MD, FRANCIS PIEN MD, J I FREDERICK REPPUN MD, MYRON E SHIRASU MD, KIM THORBURN MD, RONALD J WONG MD, TERRY C Y WONG MD, GUY N YATSUSHIRO, STEPHEN J WALLACH MD

OFFICERS
President: STEPHEN J WALLACH MD
President-Elect: JEANETTE H J CHANG MD
Past President: JOHN T MCDONNELL MD
Secretary: ANDREW DON MD
Treasurer: JOHN S SPANGLER MD

County Presidents
Hawaii: RICHARD K M LEE-CHING MD
Honolulu: PAUL A DeMARE MD
Kauai: LARRY MAGNUSSEN MD
Maui: LEONARD H SAKAI MD
West Hawaii: MINOLU R CHENG MD

Delegates to AMA
CALVIN CM KAM MD
RUSSELL T STODD MD

Alternate Delegates to AMA
STEPHEN J WALLACH MD
JOHN T MCDONNELL MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or adver tisements The advenising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association The right is reserved to reject material submitted for editorial or advertisiog columns The HAWAII MEDICAL JOURNAL (USPS 237640) is publisbed monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Non-member subscriptions are $18. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL. 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Pnnted in U S A

Neck and Back Pain is NOT hopeless....

It IS complex!

The Backworks Program is a multidisciplinary approach addressing personal responsibility, coping skills, biomechanics and psyhcosocial issues.



BACKWORKS HAWAII inc.

Active, Progressive Physical/Occupational Therapy

Gentle, but firm support for your patients since 1988.

945 Kamehameha Hwy. Pearl City, Hawaii 96782
456-7077

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

HMA Council Highlights For the Council Meeting of August 7, 1992

Present: S J Wallach, J Chang, A Don, J Spangler, J McDonnell, C Kam, F Holschuh, L Howard, P DeMare, R Lee-Ching, M Cheng, H H Chun, Walter Chang, W W L Dang, W Dang Jr, R Kimura, C Wong, K Brady, H K W Chinn, H Fong, M Shirasu, R Goodale, J Betwee, T Smith, J Lumeng, H Percy; HMA staff: J Won, L Tong, N Jones, B Kendro, J Estioko, J Asato, P Kawamoto, C Sugita, M Lindsey, and A Rogness, recording secretary.

This was Marilyn Lindsey's final Council meeting. She retires this month marking the end of 16 years of dedicated service to the HMA. A small presentation was made to her by the Council and a retirement aloha party will be hosted on Friday, August 14.

1. Council agreed to honor Orlando Watanabe, retiring Administrator for the State Department of Labor and Industrial Relations, Workers' Compensation Division, during the Presidential Banquet at the October HMA Annual Meeting. Mr Watanabe has been responsive to the HMA point of view for many years.

2. Council approved the Membership Benefits Committee's recommendation to include the Honolulu Symphony group discount program as an additional benefit to HMA members.

3. The recommendation of the Senior Physicians Committee was approved: "The Community Research Bureau should be activated and it should conduct a study to review the means of funding, and ultimately to utilize its funds after actively publicizing to HMA membership the CRB's existence, stressing that donations to it are tax deductible." The Community Research Bureau is the not-for-profit 501(c)3 arm of the HMA, established in 1968.

4. The HMA Council voted to support the efforts of the AMA to seek revisions to the Federal Antitrust laws to allow greater involvement by a formal organization of physicians in all areas of health policy, including negotiation of reimbursement policies.

5. Council authorized President Steve Wallach to inform the Governor's Blue Ribbon Panel that a medical no-fault malpractice system is not the solution to malpractice reform.

6. Fred Holschuh attended the Governor's Committee on HIV/AIDS meeting with Julie Gerberding, MD, MPH from San Francisco and reported concerns of the health care workers as well as that of the general public regarding potential exposure to HIV/HBV in the health care setting. Both mandatory and voluntary scenarios were presented as plans for disease control. HMA Council leaned toward the voluntary policy developed by New York State Department of Health to enhance public safety and prevent discrimination against infected health care workers.

7. The FDA recently issued strict regulations and penalties for pharmaceutical companies that provide contributions, gifts, or advertising to those who attend CME programs.

8. HMA will contribute a regular column in *Hawaii Parent* newsmagazine. Dr Jeanette Chang, HMA president-elect, wrote the first month's column about immunizations.

Andrew Don MD
HMA Secretary



Kasa . . .

It isn't often that a physician's span of medical practice covers 60 years. Therefore, the *Journal* is honored to include in its pages the obituary of Sadaichi Kasamoto, MD of Hilo from the *Hawaii Tribune Herald*, and the eulogy delivered by his colleague Ruth Matsuura, MD at his funeral.

Kasamoto's professional career was remarkable in that he was the first one of Japanese ancestry in Hawaii to obtain his medical degree from a Mainland school. It also reminds us that the history of medicine in Hawaii includes a time when physicians, particularly on the Big Island, owned their own small hospitals and practiced in them, as did Sadaichi Kasamoto.

We are grateful to HMA councilor Rodney Matsubara of Hilo for giving us this opportunity to honor one of our own; Kasa was a member of the Hawaii County Medical Society and the Territorial and then the State Medical Association from 1 January 1931 to 5 January 1990. He was also a member of the AMA.

J I Frederick Reppun MD
Editor

A Medical Record

Rodney T West MD, a retired physician, a former specialist in obstetrics and gynecology with the Straub Clinic and 1963 president of the Hawaii Medical Association, has put together a book which, with the help of Jan Estioko and the Tongg Publishing Company, he hopes will be available at the HMA's 1992 annual meeting. The proceeds of its sale Rod has donated to the HMA, Red Cross and Blood Bank Hawaii.

The book is entitled "Honolulu prepares for Japan's attack: May 1, 1940 to December 7, 1941".

This is the culmination of about 2 years of work on Rod's part, including extensive research. It is a documentary of the far-seeing efforts of Hawaii physicians

(Continued on page 240) ➤

For the many faces of mild hypertension

MILD



THE MOST WIDELY USED CALCIUM ANTAGONIST AS MONOTHERAPY FOR MILD HYPERTENSION[1]*

- Effective 24-hour control[2]
- Single-agent efficacy
- Well tolerated†
- No adverse effects on total cholesterol, plasma glucose levels, renal function,‡ or serum electrolytes[3-6]

ONCE-DAILY Calan® SR verapamil HCl SUSTAINED-RELEASE CAPLETS 120 mg 180 mg 240 mg

For the many faces of mild hypertension

*The recommended starting dose for Calan SR is 180 mg once daily. Dose titration will be required in some patients to achieve blood pressure control. A lower initial starting dosage of 120 mg/day may be warranted in some patients (eg, the elderly, patients of small stature). Dosages above 240 mg daily should be administered in divided doses. Calan SR should be administered with food.

†Constipation, which is easily managed in most patients, is the most commonly reported side effect of Calan SR.

‡Verapamil should be administered cautiously to patients with impaired renal function.

References: 1. Data on file, Searle. 2. Edmonds D, Wurth JP, Baumgart P, et al. Twenty-four-hour monitoring of blood pressure during calcium antagonist therapy. In: Fleckenstein A, Laragh SH, eds. *Hypertension—the Next Decade: Verapamil in Focus*. New York, NY: Churchill Livingstone; 1987:94-100. 3. Midtbø KA. Effects of long-term verapamil therapy on serum lipids and other metabolic parameters. *Am J Cardiol*. 1990;66:13I-15I. 4. Fagher B, Henningsen N, Hulthén L, et al. Antihypertensive and renal effects of enalapril and slow-release verapamil in essential hypertension. *Eur J Clin Pharmacol*. 1990;39(suppl 1):S41-S43. 5. Schmieder RE, Messerli FH, Garavaglia GE, et al. Cardiovascular effects of verapamil in patients with essential hypertension. *Circulation*. 1987;75:1030-1036. 6. Midtbø K, Lauve O, Hals O. No metabolic side effects of long-term treatment with verapamil in hypertension. *Angiology*. 1988;39:102S-1029.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol and propranolol clearance may occur when either drug is administered concomitantly with verapamil. A variable effect has been seen with combined use of atenolol. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in an increased sensitivity to lithium (neurotoxicity), with either no change or an increase in serum lithium levels; however, it may also result in a lowering of serum lithium levels. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Verapamil may inhibit the clearance and increase the plasma levels of theophylline. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. There was no evidence of a carcinogenic potential of verapamil administered to rats for 2 years. A study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes, reversible non-obstructive paralytic ileus. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, galactorrhea/hyperprolactinemia, increased urination, spotty menstruation, impotence.

2/13/92 • P92CA7196V

© 1992 Searle

P92CA7233T

Address medical inquiries to:
G.D. Searle & Co.
Medical & Scientific Information Department
4901 Searle Parkway
Skokie, IL 60077

SEARLE *Box 5110 Chicago, IL 60680-5110*

Dr Ruth Matsmura

Sadaichi Kasamoto MD
March 28, 1902 - March 26, 1992

This evening we, the family, friends, colleagues, and the countless former patients of our late beloved Dr. Sadaichi Kasamoto, affectionately known to many of us as "Kasa", are gathered together to bid him farewell. No mere words or eulogy can even begin to do justice to the full stature of our beloved Kasa. We can only stand in awe and reverence as we pay our collective tribute to him and reflect on his life of 90 years.

Monday, March 30, was "Doctor's Day" throughout the nation, a day set aside to recognize and express appreciation and gratitude to the corps of people in the healing profession. I could not help but think how very timely and appropriate that day was in the life of Hilo Hospital, as well as in Hilo itself, in recognition of one who devoted his entire lifetime to the service of bringing healing and restoring fullness of life to all who looked to him for relief from their suffering.

Kasa's life was completely and totally committed and dedicated. He spent most of his waking hours using his skills and knowledge for the sake of his patients. He was an outstanding pioneer role model to the rest of his colleagues and certainly to all those in the medical profession, setting high standards of medical care we are continually striving to attain.

I am sure that for many of you here this evening just thinking about him and being in his presence brings back floods of memories. He touched the lives of many. His efforts to aid the community exemplified his 60 years of "Lionism".

We are here to commemorate and to celebrate the accomplishments of a life given in service and lived to the fullest. It is the end of a colorful era that enriched the community of Hilo and the State of Hawaii; it raised the level of medical care throughout his 60 years of medical practice.

Kasa, in one of those rare moments, shared with me a glimpse of his early years, and I cherished those precious moments. In 1979 our medical class of 1954 was celebrating its 25th class reunion. It was the 50th class reunion for Kasa. I tried in vain to persuade him that we should go together to San Francisco to the University of California Medical School. He would not leave his beloved island even for a short time. It was then that he told me how, as a young man in his early twenties, born and raised in Laupahoehoe, he was determined to go abroad and to study to become a medical doctor. He must have had a steel-like determination to say goodbye to his family and leave the security of his home, to board a barge with the ill-fated cows from Parker Ranch at Mahukona and start the first lap of his long journey to the U.S. mainland.

He did 2 years of undergraduate work at the University of Pennsylvania, attended the University of California and then went on to the University of California Medical School in San Francisco, there to graduate in the class of 1929. He did not return to his beloved Hawaii until 1930. He had resolutely turned his face forward, like a man who puts his hand to the handle of the plow never even thinking of looking back but ever forward until he had accomplished his goal of becoming a fully qualified Doctor of Medicine.

I only wish we had an ounce of his stamina. It was practically unheard of for a person of Japanese ancestry to be admitted to a school of medicine in California at that time, but he attained that rare distinction.

He returned with his Mainland wife, the former Chie Yatabe, sister of Dr. Thomas Yatabe, a very prominent dentist in Fresno, California, who later became very active in the National Japanese American Citizens' League. Kasa had the distinct honor of being the first local boy to attend a Mainland college and to return. From that day forward, he never swerved from his lifetime commitment to bringing his medical skills and knowledge to his beloved community. I am sure he paved the way for many others to follow in his giant footsteps in studying abroad.

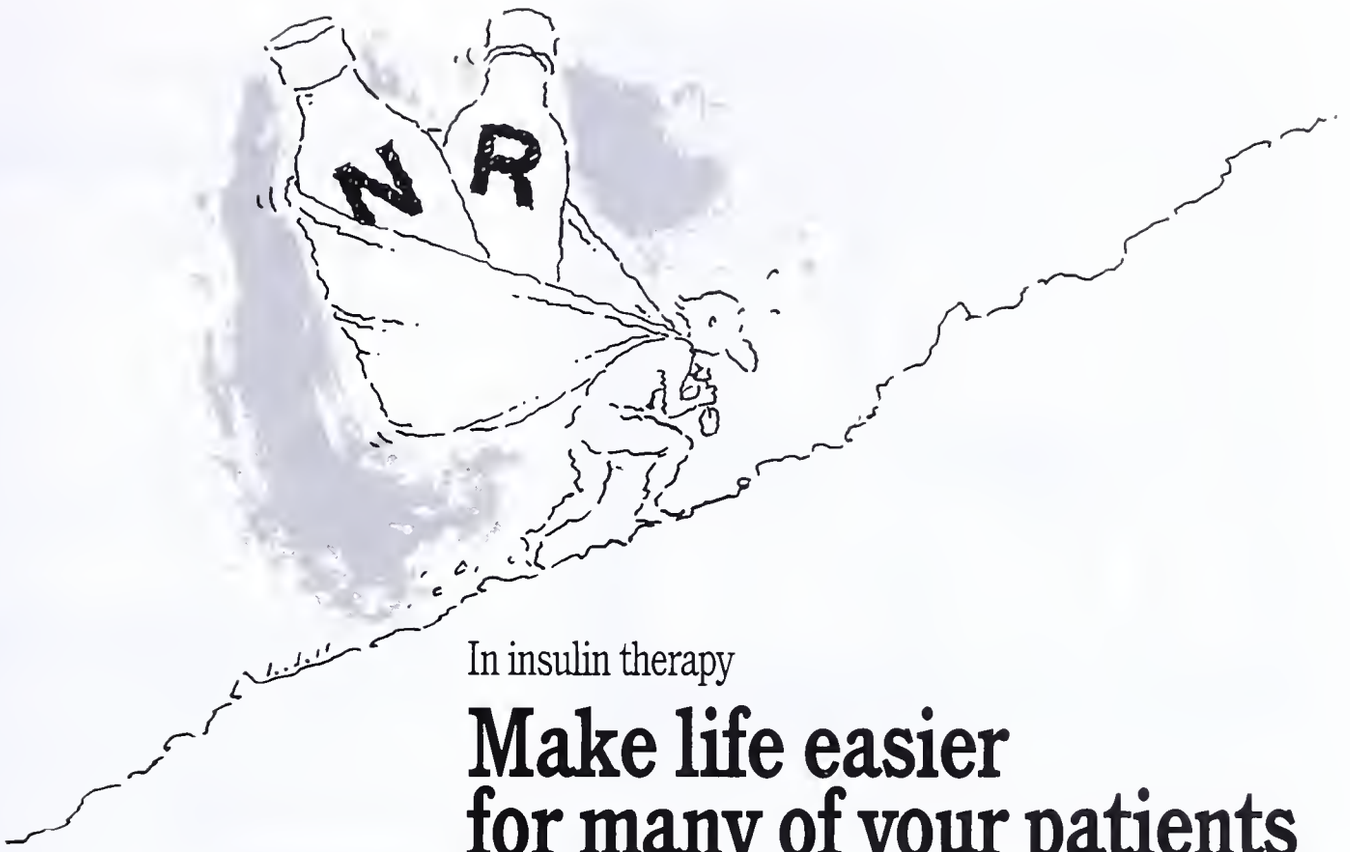
The one thing that impressed me most, and set him apart from the others, was his genuine friendliness, gentleness of spirit, his heart of gold and his walk of complete humility. He was friendly and jovial to everyone who worked at Hilo Hospital from the person cleaning the floors to the administrator. They were all his friends. He took time from his busy daily schedule to visit friends, nurses on the floors, in home health, the emergency room, in medical records and in practically all the departments. He loved teasing the nurses. Everyone felt comfortable with him and dearly loved him. He never failed in his simple, loving, friendly way to make the day brighter for everyone.

He faithfully attended all of the 7 o'clock Saturday morning sessions of the education program, and when it was over he never forgot to wrap up whatever he had left, a half-eaten doughnut or piece of pastry, for his one-master dog who had been waiting patiently in the car.

Kasa, you have taught us so much about living a life of total dedication and commitment. Your patients loved and trusted you, and you enjoyed their complete confidence. You enjoyed life to the fullest, you loved and were loved by all your friends. You touched their lives with humility and genuine concern, practicing the highest quality of medicine and addressing the total needs of your patients. Nothing was too insignificant or too minor to escape your touch of life and healing.

During one campaign year when I was canvassing your area, you noted that I was limping. You saw the blister on my foot and you did not let me go until you had dressed it with an ointment and a Band-Aid. I left, much more comfortable and able to complete the canvassing, but I was moved and touched by your concern.

Your storehouse of treasures and rewards in heaven must be so overflowing that I am sure there is no room to hold it all. The legacy that you leave for us to follow you in your footsteps is rich and immeasurable, one that will continue to inspire and encourage us to hold high the torch that you so diligently carried throughout your life. May yours be a well-deserved rest from your fruitful labor of love. Mahalo to you, our beloved Kasa. We will miss you very much. You will remain alive in the hearts of us all.



In insulin therapy

Make life easier for many of your patients

Humulin 70/30. Convenient and simple to administer. No more mixing. No more mixing errors. All of which makes living with diabetes a little easier for patients. And compliance a lot easier to achieve.



Humulin® 70/30

70% human insulin isophane suspension
30% human insulin injection
(recombinant DNA origin)

The patient-friendly premix

Lilly

Global Excellence in Diabetes Care

Eli Lilly and Company
Indianapolis, Indiana
46285

WARNING: Any change of insulin should be made cautiously and only under medical supervision.

HI-7905-B-249327 ©1992, ELI LILLY AND COMPANY

Isn't it about time to refinance your commercial mortgage?

Four reasons why a
Creditcorp Commercial Mortgage Loan
makes sense:

1. Flexible Terms.
You may select from a variety of term options, with up to a 30-year amortization.

2. Fixed and Variable Rates.
For qualifying commercial property, Creditcorp offers attractive variable or fixed rates. For example, **our current 5-year fixed rate is a low 9.00%.***

3. Cash Flow.
A loan individually structured to improve your property's net cash flow at an attractive, guaranteed rate up to 10 years.

4. Fast Service.
Give one of our experienced, commercial real estate loan officers a call and we'll promptly provide you a proposal for a **Creditcorp Commercial Mortgage Loan.**

For more information call our **Commercial Real Estate Department at 525-7100** or any First Hawaiian Creditcorp branch.

*Rate subject to change.

First Hawaiian
Creditcorp
Yes you can. Member FDIC

Downtown 538-6781 • Kahala 732-6641 • Keeaumoku 946-9555 • Moanalua 839-1961 • Pearl City 488-7735
Waipahu 677-0751 • Windward 261-3341 • Kauai 245-3945 • Kona 329-7741 • Maui 877-3918

EQUAL HOUSING LENDER

Acral lentiginous melanoma: Case studies from Kauai

Jonathan Charles MD*
David J Elpern MD**

Cutaneous malignant is generally regarded as a skin cancer of Caucasians. However, one subtype, acral lentiginous melanoma (ALM), has an equal distribution among all ethnic groups and is the variant most common in non-Caucasians. In its early stage it is difficult to recognize and, unless diagnosed early, has a very poor prognosis. Herein, we present 3 cases of ALM seen on Kauai in 1990.

Introduction

Cutaneous malignant melanoma is increasing in incidence at an alarming rate. If this trend continues, it is estimated that the incidence of melanoma in all Americans born in the year 2000 will be 1:90[1]. This estimate apparently refers to Americans of all ethnic backgrounds, thus the incidence in Caucasian Americans will be substantially higher since melanoma is at least twice as prevalent in Caucasians as in non-Caucasians.

Melanoma is subdivided into 4 clinicopathologic types: Superficial spreading, nodular, acral lentiginous (ALM) and lentigo maligna melanoma.

ALM affects the glabrous or non-hair-bearing surfaces of the skin and includes the volar aspects of the hands and feet and the subungual regions. Superficial spreading and nodular melanoma may also affect these locations; however, ALM is the most common variant at these sites. Due to its somewhat concealed location, it may not be recognized until in an advanced stage.

ALM affects Caucasians and non-Caucasians to the same extent. However, the overall number of cases of melanoma is much less in non-Caucasians so the relative percentage of ALM is higher in this group.

We report on 3 cases of ALM all seen in patients of predominantly Filipino ancestry on Kauai during 1990.

Case Histories

Case 1 is a 66-year-old Filipina who presented to her family physician with what appeared to be an area of infection measuring 8 mm in diameter on the instep of the sole of her right foot. She was treated with antibiotics; however, the skin lesion did not resolve. The clinical impression was then changed to a traumatized plantar wart. Wisely, a skin biopsy was performed; a histologic diagnosis of ALM was made and the patient underwent a wide local excision with grafting (Fig 1). There was no evidence of metastasis and the patient is doing well.

* Department of Pathology
** Department of Dermatology
Kauai Medical Group and
Wilcox Memorial Hospital
Lihue, Hawaii

Received for publication August, 1991.

Case 2 is a 49-year-old Filipino/Hawaiian man who presented to his doctor with a 2 cm dirty ulcer on the heel of his right foot. The patient, unable to give a good history, stated that the ulcer had been present "for 10 years" and it bothered him when he drove his truck. A biopsy was interpreted as ALM (Fig 2). The patient is currently undergoing further treatment elsewhere.

Case 3 is a 32-year-old Filipina who presented to the emergency room complaining of tightness in her right foot while jogging. She stated that a "mole" had been present on her left 4th toe for the past year. She had lost 30 pounds in weight in the past 4 months and suffered from anorexia, nausea and vomiting during the past month. Physical examination revealed an ulcerated, dark-brown nodule on the dorsomedial aspect of her left 4th toe (Fig 3). She had multiple subcutaneous nodules measuring up to 4 cm in diameter over her body. A biopsy confirmed the clinical suspicion of ALM. CT-scan disclosed metastases to the eye and cerebrum. The patient died one month later. No autopsy was performed.

Discussion

The number of cases of melanoma increases every year. Approximately 27,600 new cases of melanoma are expected to be diagnosed in the U.S. this year[2]. The 5-year survival rate in the U.S. has improved from 43% in the 1930s to 83% in 1983[2]. Despite this improvement, mortality has more than doubled over the same time period due to the increase in the incidence. A 3- to 4-fold increase in incidence has been reported in the 20-year period 1960 to 1980; for example, in both Japan and Hawaii[3,4]. This increase pertains to all 4 subtypes of melanoma.



Fig. 1 - Case 1. Wide local excision of plantar ALM.

(Continued on page 236) ➤

In the mid-1970s, RJ Reed categorized ALM as a separate subtype of melanoma based on its anatomic sites of predilection and its distinct histology[5]. There is a great ethnic/racial variation in the percentage of melanomas that are of the ALM type. It is highest in Africans and African-Americans (upward of 76%) and lowest in whites (less than 10%)[6,7,8,9,10]. The remainder of the ethnic groups fall between these extremes. Of note is the fact that Chinese, Japanese, Southeast Asians (including Filipinos) and Polynesians are predominantly in the upper portion of this intermediate zone of distribution; with cases of ALM ranging between 29% to 74% of all cases of melanoma in these ethnic groups[4,6,7,9,10].

ALM has a peak age incidence in the seventh decade of life in man and in the sixth decade in women[1]. The other 3 subtypes of melanoma are linked to intermittent sun exposure and burning; however, the etiology of ALM is uncertain[11]. Neither trauma nor pigmented nevi appear to predispose to ALM[7,8,9,12].

Caucasians are most prone to develop melanoma and this predisposition is indirectly proportional to the amount of pigment in the skin. For instance, the incidence is highest in red-headed Caucasians who freckle easily. Blacks and other darker-skinned races have a higher percentage of distribution of melanomas on the palmar-plantar surfaces, although the actual incidence at that site is very similar for all races since skin in these areas is relatively depigmented. Thus, non-pigmented skin in whites and non-whites is the most likely to develop melanoma.

Plantar melanoma outnumbers palmar melanoma by a factor of 17:11[3]. In its early stages of radial growth, it appears as a variably pigmented, brown macule with subtly asymmetric, irregular, notched borders (Fig 4). This stage may last for several months or years; then, there occurs a rapid change to the vertical phase of growth, heralded by a dark nodule (Figs 1,3,5). Since glabrous skin can extend medially and laterally around the digits, ALM also may arise on dorsolateral surfaces of the hands and feet (Fig 3,5). Longitudinal dark-striations in the nail bed or perionychium (Hutchinson's sign) may herald a subungal ALM.

It is difficult to recognize ALM during the radial growth phase but excisional treatment at this stage offers an excellent prognosis. During radial growth, and in the later vertical growth phase, plantar ALM can be misdiagnosed as a nevus, plantar wart, corn, callus, infected site of trauma (with hemosiderin deposition), hematoma, pyofenic franuloma, or even a focal area of gangrene. A high index of suspicion is needed to make the diagnosis. Any atypical lesion of the plantar surface, especially one with irregular borders or ulceration, should be biopsied.

In the majority of cases, ALM has a distinct histologic appearance (Fig 2). There is marked hyperplasia of atypical melanocytes with long dendritic processes along the base of the epidermis. Unlike other subtypes of melanoma, there is usually little if any migration by the atypical melanocytes into the upper epidermis. There is thickening (acanthosis) of the epidermis and irregular, wide elongation of the rete ridges. In its vertical growth phase, a predominance of atypical spindle cells with increased mitoses extend downward into a desmoplastic dermis.

The prognosis in ALM compares favorably with other subtypes of melanoma if the depth of invasion is minimal[1,2,13]. However, ALM is usually diagnosed rather late due to its obscure location and ill-defined appearance; thus, it carries an overall poor prognosis. Blacks have a worse prognosis than whites with 5- and 10-year survival rates being 18% and 18% for blacks and 72% and 16% for whites[8,13]. The 5-year survival rate of ALM in Japan, according to one study, was 29% as compared to 39% for all melanomas[3].

Prognostic indicators in ALM are similar to that in other melanomas and include: Depth of invasion (Clark's dermal or subcutaneous level of invasion and Breslow's measured depth of thickness); ulceration (if present, it carries a worse prognosis); stage (involvement of lymph nodes, presence of distant metastates); and mitotic rate or index (an increased number of mitoses lowers the chance of survival)[2,14,15].

The depth of invasion is considered to be the prognostic factor of greatest significance. Both Clark level I (tumor confined to the epidermis and its appendages) and Breslow depth of invasion less than 0.76 mm carry a 10-year survival rate of greater than 95%[2]. According to the staging system of melanoma by the American Joint Committee on Cancer (that takes into account depth of invasion, lymph node involvement and metastases), the 5- and 10-year survival rates for Stage I (Clark level III or less; depth of invasion less than 1.5 mm; no lymph node or distant metastasis)

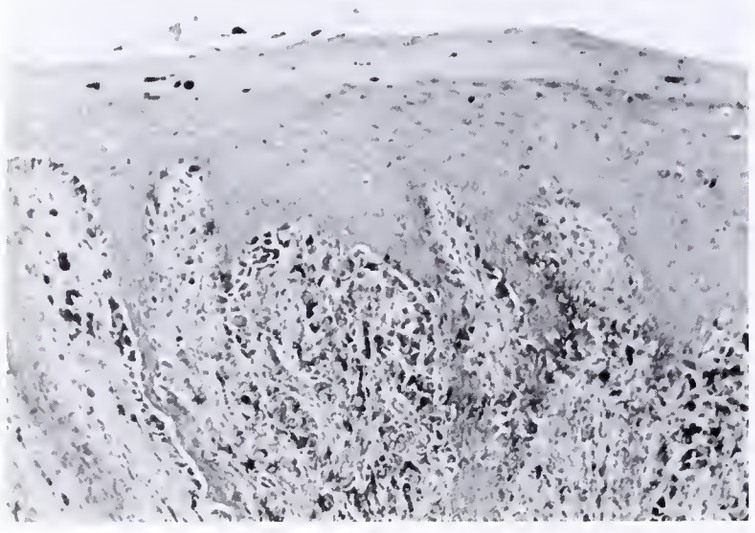


Fig. 2 - Case 2. Plantar ALM. High power. H&E stain.



Fig. 3 - Case 3. ALM of foot, dorsomedial extension.

(Continued on page 239) ➤



"Ron's Rule—I give myself one week to meet new people and start having fun on a locum tenens assignment. It hasn't failed me yet."

Ron Richmond, MD, joined the CompHealth locum tenens medical staff when he completed his residency. He wanted to travel. He loves to meet people. A little time off sounded really good. And he thinks being exposed to different types of medical practice will serve him well when he returns to his hometown to establish a community health center.

A singer. A board-certified family practitioner. Soft-spoken for a New Yorker. Ron Richmond knows. . .

It's a great way to practice medicine

CompHealth

LOCUM TENENS

1-800-453-3030

Salt Lake City ■ Atlanta ■ Grand Rapids, Mich.

CONFERENCE CONNECTIONS

Put your meeting on the line with our new teleconference service.



- New, state-of-the art equipment and technology
- Quality voice transmission
- 24-hours a day Operator service
- Worldwide coverage
- Full range of conference services
- New Meet-Me call in conference service
- Operator Dial-Out service to most locations

A teleconference is easy as picking up your phone.
Call 643-CONF (643-2663) for information and reservations.

GTE Hawaiian Tel

Beyond the call

EXAMINE US CLOSELY

You shouldn't have to play a waiting game with your bank. And you don't, at American Savings Bank.

When we say that medical practices can count on us for timely financing, count on it. Because we know that for small and mid-size businesses, sooner isn't just better, it's critical.



When we say that you can expect personalized attention from our corporate banking people, expect it. So you can focus your attention on your growing practice.

When we say that you can turn to us for competitive rates, we're not just turning a phrase. You'll also find that we can be more creative, more flexible. So you can respond to opportunities more quickly.

Let us help you take your business in the right direction. Call our Corporate Banking Department at 539-7242.

American Savings Bank, your small business experts.

American Savings Bank FSB

An HEI Company

EQUAL HOUSING OPPORTUNITY LENDER

MEMBER FDIC

are 97% and 95% respectively[2].

The major drawback in using these prognostic criteria for ALM is that in most cases the level of invasion into the soles or palms is difficult to assess, since the normal increased thickness of the epidermis in these locations exaggerates the true Breslow depth of invasion. There also is poor demarcation between the papillary and reticular dermis at these loci with little, if any, subcutaneous fat present and thus assignment to the Clark level is usually arbitrary.

The treatment of ALM is wide, local excision or amputation[13,16]. Elective regional lymph node dissection (without clinical evidence of tumor involvement) is generally not indicated. Lymph node dissection is not recommended in the case of widespread metastases.

In advanced stages chemotherapy, immunotherapy (most noteworthy, interleukin-2), hormonal therapy (melanocyte-stimulating hormone targeting of cytotoxic agents), and fast neutron therapy are used in a few specialized treatment centers; however, the prognosis at these stages is generally very poor. Melanoma is generally regarded as radioresistant.

Early diagnosis and surgery offer the best chance of cure. Unfortunately, as illustrated in our case number 2 and 3, patients may not be aware there is a lesion on the sole of their foot and, if so, most often associate it with trauma. Soles and palms should be checked during a general physical examination. If a pigmented or nonpigmented lesion with the diagnostic criteria suggesting ALM is discovered, it should be biopsied[17]. Saida and Yoshida recommend that any pigmented lesion on the sole of the foot greater than 7 mm in diameter should be biopsied[18]. This biopsy should be wide and deep enough for the pathologist to be able to interpret the histologic findings.

All melanomas are increasing in incidence. ALM is elusive and proportionately forms a greater percentage of melanomas in non whites. Its prognosis is worse than for other types of melanoma. Only a careful physical examination, a high index of suspicion and early diagnosis will lower its high mortality rate.

ACKNOWLEDGEMENTS

Fig 4—Courtesy of American Academy of Dermatology.

Fig 5—Courtesy of Evan Farmer, MD, Director, Department of Dermatology. Johns Hopkins School of Medicine.

REFERENCES

1. Freidman RJ, Heilman ER, et al. Malignant melanoma; clinicopathologic correlations. *Cancer of the Skin.* 1991;148.
2. Rigel DS, Sober AJ, et al. Prognostic factors influencing survival in persons with cutaneous malignant melanoma. *Cancer of the Skin.* 1991;198-206.
3. Seiji M, Takematsu H, et al. Acral melanoma in Japan. *J Invest Dermatol.* 1983;80(6):56S-60S.
4. Hinds HW, Kolonel LN. Malignant melanoma of the skin in Hawaii, 1960 to 1977. *Cancer.* 1980;45:811-817.
5. Reed RJ. Acral lentiginous melanoma. *New Concepts in Surgical Pathology of the Skin.* 1976;27-147.
6. Feibleman CE, Stoll H, et al. Melanomas of the palm, sole, and nail bed: a clinicopathologic study. *Cancer.* 1980;46;2492-2504.
7. Stevens NG, Liff JM, et al. Plantar melanoma: Is the incidence of melanoma of the sole of the foot really higher in blacks than whites? *Int J Cancer.* 1990;45;691-693.
8. Fleming ID, Barnawell JR, et al. Skin cancer in black patients. *Cancer.* 1975;35:600-605.
9. Kukita A, Ishihara K. Clinical features and distribution of malignant melanoma and pigments nevi on the soles of feet in Japan. *J Investi Dermatol.* 1989;92(5):210S-213S.
10. Collins RJ. Melanoma in the Chinese of Hong Kong: emphasis on volar and subungual sites. *Cancer.* 1984;54:1482-1488.
11. Elwood JM. Epidemiology and control of melanoma in white populations and in Japan. *J Investi Dermatol.* 1989;92(5)214S-221S.
12. Coleman WP, Loria PR, et al. Acral lentiginous melanoma: *Arch Dermatol.* 1990;116:773-776.
13. Slingluff CL, Vollmer R, et al. Acral melanoma; a review of 185 patients with identification of prognostic variables. *J Sur Oncol.* 1990;45:91-98.
14. Harris TJ Day CL. Malignant melanoma: prognostic factors. *Basic and Clinical Aspects of Malignant Melanoma.* 1987;119-130.
15. Ronan SG, Han MC et al. Histologic prognostic indicators in cutaneous malignant melanoma. *Semin Oncol.* 1988;15(6):558-565.
16. Ho VC, Sober AJ. Therapy for cutaneous melanoma: an update. *J Am Acad Dermotol.* 1990;22(2):159-176.
17. Keefe M, Dick DC, et al. A study of the value of the seven-point checklist in distinguishing benign pigmented lesions from melanoma. *Clin Exper Dermatol.* 1990;15:167-171.
18. Saida T, Yoshida N. Clinical guidelines for the early detection of plantar malignant melanoma. *J Am Acad Dermatol.* 1990;23:37-40.

■



Fig. 4 - Plantar ALM, relatively early stage.



Fig. 5 - ALM of hand, dorsomedial extension.

and organized medicine to be prepared in the event of impending war at a time when Hawaii was a territory of the U.S., way out in the Pacific ocean and when communication between Washington and the Pacific military outposts of Pearl Harbor, Schofield Barracks and Wheeler Air Force Base was rather erratic and slow. This bit of medical history of that era, now 50 years behind us, has never received much mention heretofore.

It was not possible to have this published by Pearl Harbor's 50th anniversary last year, despite Rod's efforts, but it will celebrate the 51st remembrance. Rod West is to be commended for his considerable contribution to Hawaii's history and for this accolade to that generation of Hawaii's physicians.

J I Fredrick Reppun MD
Editor

SHERATON MAKAHA RESORT AND COUNTRY CLUB



THE KAMAAINA
"WHOLE IN ONE"
$85*
ROOM AND GOLF PACKAGE

Now you can play 18 holes of Oahu's most challenging golf (with a 74 USGA rating) at Sheraton Makaha West Course. Then relax and spend the night in our peaceful, country-club atmosphere. All at a special little "Whole in One" rate.

Just $85 per person, per night, Sundays thru Thursdays. $95 per person, per night on weekends. Play an additional round on the same day at a special rate (space available).

For "Whole in One" reservations call Sheraton Makaha at 695-9511.

* Per person, per night. Based on double occupancy. For a limited time only, subject to space availability. Single golfer rates also available. Rates do not include applicable state taxes. Proof of Hawaii residency required.

Sheraton Makaha
RESORT & COUNTRY CLUB
OAHU
ITT Sheraton

A Mammogram:



A Picture That Could Save Your Life

If someone told you that simply having your picture taken could save your life, would you do it? Of course. A mammogram, which can detect breast cancer in its earliest, most treatable stages, is just that—a picture—an x-ray of the breast that can save your life.

One in 9 women will develop breast cancer at some point in her life, but mammography can help you beat the odds. Here are 3 key tips from the National Cancer Institute (NCI):

When you turn 40, have a mammogram every 1 to 2 years and, when you turn 50, have one once a year. You should also have annual physical breast exams by a doctor and do monthly breast self-exams.

Ask your doctor to make an appointment for you to get a mammogram at a quality facility, or call a local hospital or health clinic to arrange an appointment. The procedure is simple.

Don't fear the results of a mammogram. For those women who do have breast cancer, there are several effective treatment options. Up to 90 percent of these women will survive breast cancer when it is found and treated early, before it has spread beyond the breast.

If you have any questions, call NCI's toll-free Cancer Information Service at 1-800-4-CANCER.

Can you get all of these discounted banking services?

Personal Checking Plan

Free checking for a year.

First 200 checks free.

TellerPhone® Home Banking and Automatic Bill Payment

Use free of charge for a year.

Reduced Rate Financing

We'll also waive the annual fee on our Gold MasterCard® and Visa® for the first year.

Discounted Credit Card Merchant Services

Special discount rates for credit card processing.

Asset Management and Financial Planning

Free consultation for personal estate planning.

20% fee reduction for the first year on First Hawaiian's exclusive Investment Monitor Account.℠

And a second opinion, too?

Your Own Personal Banker

Your personal banker is just a phone call away to help you make all the right business and personal banking decisions, and to assist you with your transactions.

Yes you can.

Now you can enjoy a special program of financial services created exclusively for the members of the Hawaii Medical Association by First Hawaiian Bank. You'll also have the added expertise of a personal banker who will assist you with all of your banking needs.

To find out how you can take advantage of these benefits, simply call Mark Taylor at 525-8824 during normal business hours. Members on the neighbor islands, please call collect.

First Hawaiian Bank

Race, ethnicity and birth-weight: Hawaii 1983 to 1986

David H Crowell PhD*
Robert I McGee PhD**
Dexter Seto MD ***
Santosh D Sharma MD†
Peter Dunn-Rankin EdD§

A study of racial/ethnic-specific mean infant birth-weights reported on 1968 to 1972 live birth-weight certificates for Oahu, Hawaii is reviewed here. The 1983 to 1986 data confirm those earlier results: (a) The Hawaiian group is significantly heavier in mean birth-weights than other cohorts during the preterm period (33 to 36 weeks gestational age); (b) statistically significant differences also were present in mean birth-weights for the term and post-term periods (37 to 45 weeks gestational age); and (c) the ranking of cohorts from heaviest to lightest in mean birth-weights is Caucasian, Hawaiian, Japanese and Filipino respectively. The data raises 2 questions: (1) Which birth-weight standards are most applicable for Asian and Pacific Islanders; and (2) what are the implications of the race/ethnic-specific mean birth-weight differences relative to mortality, morbidity and developmental outcome?

The question of racial/ethnic (R/E)-specific differences in birth-weight and the implications for R/E-specific infant mortality and morbidity is a clinically important problem relative to Hawaii's diverse population[1]. A number of studies have examined R/E-specific birth-weights for Asian and Pacific Island groups.

Connor et al[2], based on single births in 1952 to 1953 in Hawaii, reported the following order of median birth-weights in grams: Caucasians 3,364, Part-Hawaiian 3,305, Korean 3,276, Hawaiian 3,272, Puerto Rican 3,239, Chinese 3,238, Japanese 3,220 and Filipino 3,117.

Morton et al[3] examined the genetic effects of outcrossing on first generation hybrids in the State of Hawaii for the years 1958 to 1966. Relative to mean birth-weights, their results showed that both Caucasians and Hawaiians had the heaviest infants and Japanese and Puerto Ricans had the lightest.

* Newborn Research Laboratory
Kapiolani Medical Center for Women and Children
Pacific Biomedical Research Center
Department of Pediatrics
John A Burns School of Medicine
Straub Clinic & Hospital
** State Department of Health
*** Department of Pediatrics
John A Burns School of Medicine
† Department of Obstetrics and Gynecology
John A Burns School of Medicine
§ Department of Educational Psychology
University of Hawaii, Honolulu

Received for Publication September 6, 1991.

Mean birth-weights in a series of single, liveborn, Chinese babies from Taiwan were compared with a series of white American babies by Lin and Emanuel[4]. The Chinese babies were clearly smaller than the white American babies. Although the intrauterine growth standards for American infants were expected to exceed those for Chinese infants, the gestational, age-specific birth-weights in the American series were within or below the confidence limits for the Chinese.

After controlling for the effects of 22 factors, Shiono et al[5] reported differences in birth-weights among Asians (as a group), blacks, Hispanics and white groups in California. In comparison with whites, they estimated the relative mean differences in birth-weight as -246g in blacks, -210g in Asians, as a group, -105g in Hispanics and -140g in all others.

Purpose

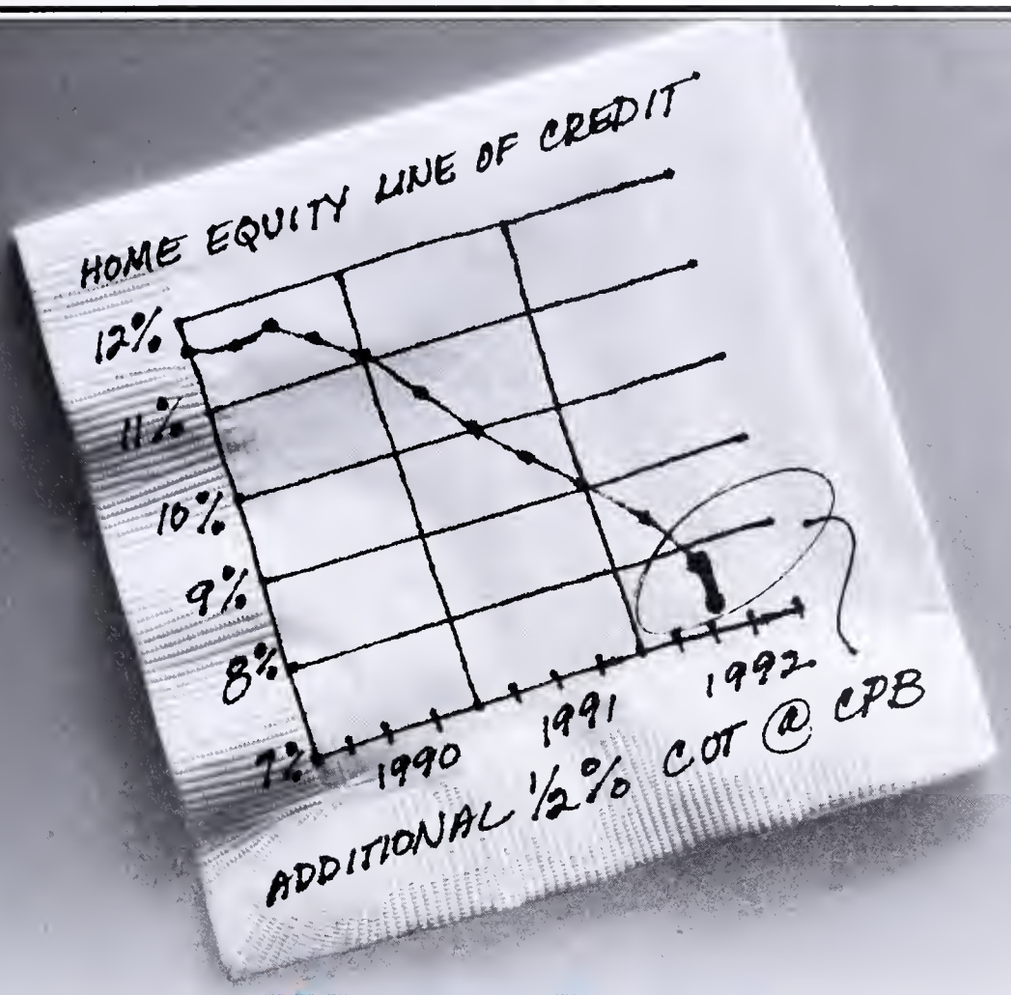
Preliminary, exploratory, statistical comparisons of birth-weights recorded on live birth certificates for the island of Oahu, State of Hawaii, for the years 1968 to 1972 have led to several substantive exploratory hypotheses. The 1968 to 1972 data were based on: (a) Single births of at least 500g infants and (b) gestational ages between 24 and 46 weeks. Parental R/E was self-reported at the time of birth with only one R/E-designation permitted. The reported R/E of the mother was classified into 4 groups: Caucasian (N=18,756), Filipino (N=5,856), Hawaiian (N=7,524) and Japanese (N=6,802). Not included in any analyses were the Chinese, who constituted too small a sample for intensive analysis, and the "others" who represented too diverse a population.

The exploratory hypotheses revealed significant R/E-specific mean birth-weight differences throughout the gestational period of 24 to 46 weeks: Hawaiian and Japanese in the late prenatal period, and Caucasian and Filipino in the term and post-term periods, had heavier and lighter babies, respectively.

Our present study evaluates the previously developed hypotheses as compared with State of Hawaii 1983 to 1986 live birth certificate data. Hypothesis I: The birth-weights of Caucasian, Filipino and Japanese newborns statistically are different for gestational ages during the preterm period of 24 to 36 weeks.

Hypothesis II: The birth-weights of Caucasian, Filipino and Japanese newborns are statistically different for each gestational age during the term (37 to 41 weeks) and post-term (4 to 46 weeks) periods. Specifically, the Caucasian newborns are statistically larger than Filipino and Japanese newborns, but there is no statistical difference between the Filipino and Japanese newborns.

(Continued on page 244)➤



We took our lowest rate in history and still cut another ½ percent.

Compare our Home Equity Line of Credit with any other institution's. The lowest interest rate is just the beginning.

You see, we start by cutting .5% off our lowest annual percentage rate.* Compare our package. No points. No closing cost. No appraisal cost. No annual fees. No pre-payment penalty. No minimum draw. No charge for 50 checks. No charge for Purchase Security & Extended (Warranty) Protection.**

To make it completely hassle-free, we will make all the arrangements to transfer your present line of credit from another institution if you wish.

Call the branch manager at any of our 18 convenient branches statewide.

EQUAL HOUSING LENDER

Central Pacific Bank

We Put You First! Member FDIC

Main Branch / 220 S. King Street / Phone 544-0500

*Annual percentage rate may vary monthly, but will not exceed 18% APR. Certain restrictions may apply.

**Purchase Security & Extended (Warranty) Protection is in excess of other insurance. Certain conditions, exclusions & restrictions apply.

Methods

Design

The design was a retrospective, comparative, population analysis of the effect of maternal R/E on the birth-weight of infants.

Subjects

The study cohorts which conformed to the earlier set of requirements were Caucasian (N=15,978), Filipino (N=7,959), Hawaiian (N=9,856) and Japanese (N=7,052).

Procedure

The classified and coded variables taken from each birth certificate are shown in Table 1. Two calculated variables were parity and the socioeconomic status of the mother's census tract of residence (SESMCT). Parity was defined as the number of live births and was calculated based on the children previously born and still alive, plus previously born alive but now dead plus the current delivery. The SESMCT was computed by the use of Wegner's[7] formula: SESMCT = ((Education z score + Income z score)/2) X 3 + 10. All of these variables were used in the analyses as possible extraneous determinants of variations in the dependent variable birth-weight.

Analysis

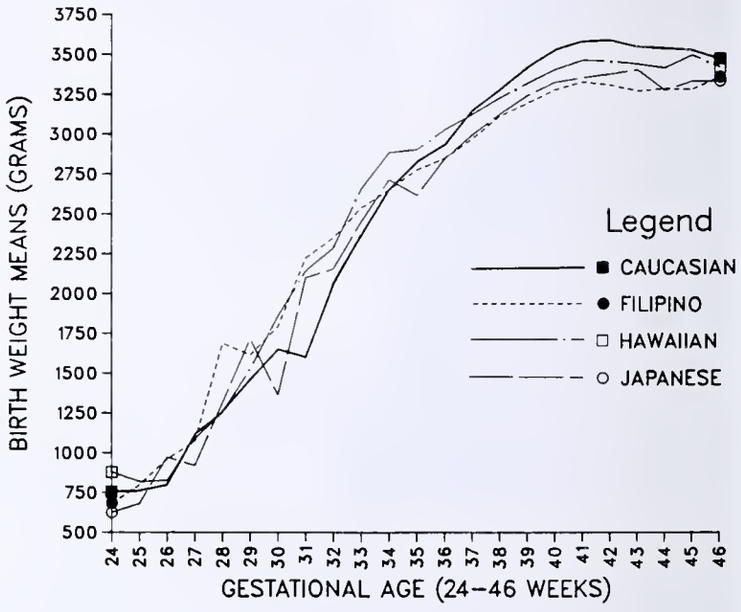
The percent birth-weight of Filipino mean birth-weights relative to Caucasian, Hawaiian and Japanese mean birthweights was calculated.

Gestational age-specific, step-wise multiple regression analysis was performed with each of the 4 R/E groups to determine the effect of the birth certificate variables on weight at birth. This approach, though different from that used in the former study, was (a) considered more likely to detect the effects of any confounding variables linked to an individual R/E cohort, and (b) as a result, the variable also was evaluated relative to the total group. A variable was considered to have a significant effect on birth-weight if its regression coefficient was statistically significant ($p<0.05$) and explained at least 20% of the variance of birth-weight, (partial $R^2 0.20$).

All variables having a significant effect on birth-weight in each R/E cohort were employed as a set of covariates in an analysis of covariance[8] procedure to isolate the effect of maternal R/E on the birth-weight of the infant. For the gestational ages where the regression procedure produced no significant covariates, an analysis of variance procedure was used. When the 2 procedures indicated a significant difference in birth-weight among the maternal R/E groups, the Duncan Multiple Range Test was used to detect the individual group differences in birth-weights. All calculations were performed using the preprogrammed computerized Statistical Analysis Procedures (SAS)[9].

TABLE 1. Classified and Coded Variable[6]

1	Birth Weight	(BIRTHWT)
2	Complication of Pregnancy	(COMPREG)
3	Congenital Anomaly	(CONANOM1)
4	Condition on illness that affects the current pregnancy	(CONILLNS)
5	Father's Age	(DADAGE)
6	Date of Birth (year)	(DOBYR)
7	Education of Father	(EDUCDAD)
8	Education of Mother	(EDUCMOM)
9	Gestational Age	(GESTAGE)
10	Legitimacy	(LEGTMACY)
11	Mother's Age	(MOMAGE)
12	Month Prenatal Care began	(MOPNATAL)
13	Mother's Place of Residence (census tract)	(MPORCT)
14	Father's Race	(RACEDAD)
15	Mother's Race	(RACEMOM)
16	Total Number of Prenatal Visits	(TOTNOPNV)
17	Previous Delivery Born Alive	(PRDBALIV)
18	Previous Delivery Born Alive Now Dead	(PRDBALDE)



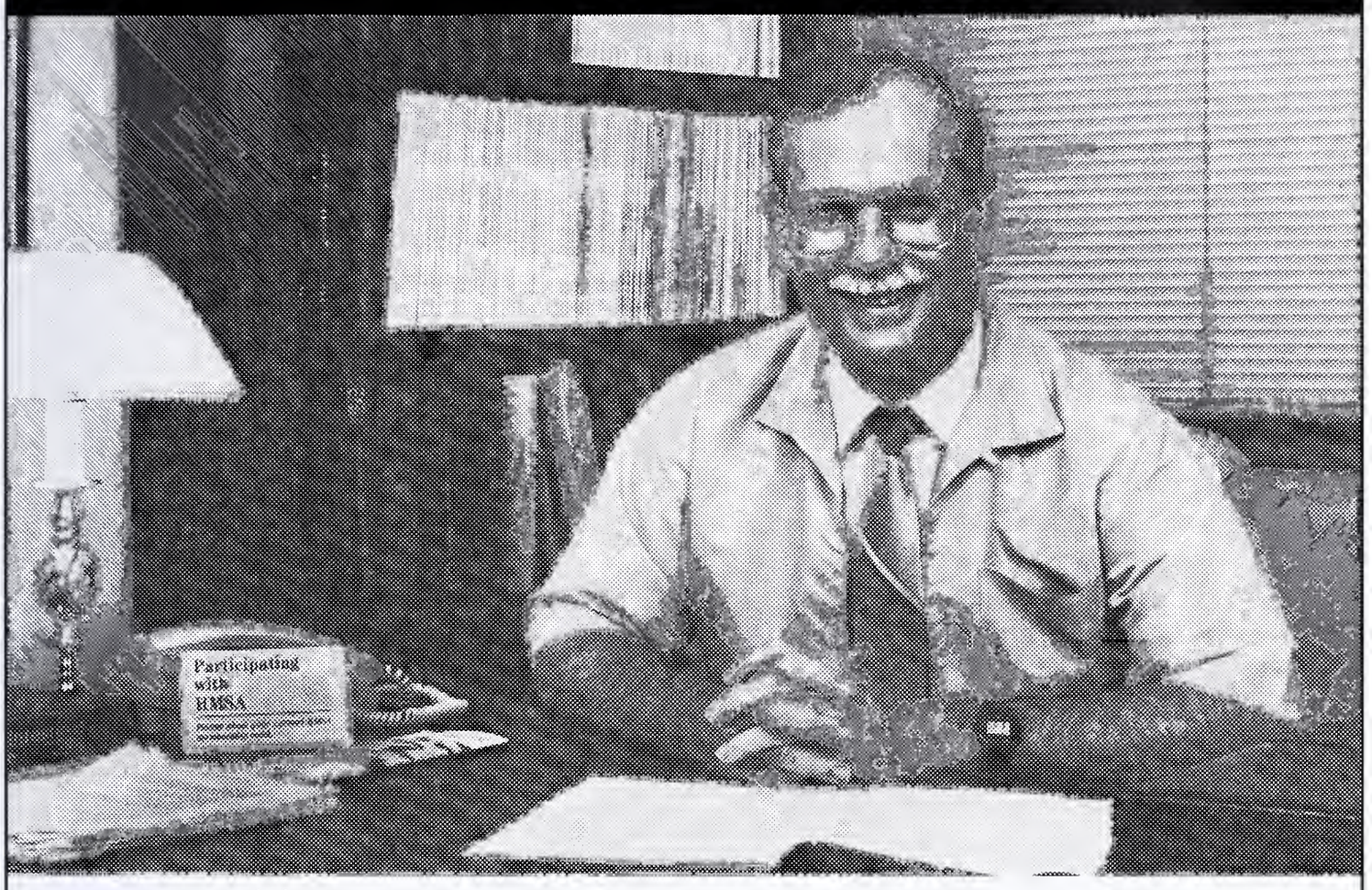
Results

Filipino infants of gestational age of≤33 weeks generally have a larger mean birth-weight than Caucasian infants. For a gestational age ≤5 weeks the converse is true. Hawaiian mean birth-weights appear to be generally larger than Filipino mean birth-weights throughout the late prenatal gestational period. The Japanese mean birth-weights fluctuated; they appeared to be slightly lower at 24 to 33 weeks and then were comparable to the Filipino weight levels at 34 to 46 weeks.

The covariance and variance procedures described above indicated that the observed differences in mean birth-weights among the 4 groups were statistically significant at 28 weeks gestational age and at every gestational age ≤33 weeks (Figure 1). (The results of the Duncan Multiple Range Test are available on request from the authors, as well as the R/E and gestational age-specific, mean birth-weight data.)

(Continued)➤

Why is Dr. William Hartman an HMSA Participating Provider ?



"It's the right decision for me and for my patients."

HMSA offers health care providers like Dr. Hartman, a gastroenterologist in Honolulu, some very good reasons for joining our Participating Provider Program. Reasons like the competitive advantage he has with access to our more than 600,000 members — 90% of whom choose Participating Providers. Or the payments that he receives directly and promptly from HMSA — that helps his cash flow and eases his administrative expenses.

Like Dr. Hartman, when you participate with HMSA, you can depend on our staff to provide courteous and professional service. And your patients benefit by knowing in advance what their out-of-pocket costs will be. They feel secure that you and HMSA are working together to keep those costs under control.

If you care about your patients' health care and its cost, being an HMSA Participating Provider makes sense. For more information on HMSA's Participating Provider Program, call 973-7700 on Oahu or your local HMSA office.

HMSA

Blue Cross Blue Shield of Hawaii

With you all the way.

Discussion

This systematic replication confirms the R/E-specific birth-weight differences previously reported from 1968 to 1972 live birth certificates. The significantly greater mean birth-weight at 28 weeks in the Filipino cohort is in line with the earlier observation. Likewise, the Hawaiian cohort is significantly heavier for gestational ages 34 to 36 weeks. In light of these findings, Hypothesis I is accepted.

The emergence of a splitting factor at about 36 weeks of gestational age also clearly identifies dominant R/E group differences. The term and post-term results confirm the early results and therefore, Hypothesis II is also accepted. In terms of statistically significant differences the cohort ranking from heaviest to lightest mean birth-weight weights is Caucasian, Hawaiian, Japanese and Filipino.

As in the 1968 to 1972 exploratory study, the analyses controlled for most of the known multifactorial determinants which are associated with variations in birth-weight[10]. In accepting the clear demarcation of R/E differences in birthweight, there are several extenuating factors which must be evaluated: First, the possibility of errors related to calculations of gestational age and measurements of weights at the time of birth, as well as factors associated with inclusion/exclusions in the newborn samples; second, the reliability of self-reported parental R/E identity; third, the lack of data on maternal size, weight-gain during pregnancy and substance abuse.

These are all variables with a definite impact on birthweight and are not recorded on the birth certificate. The effect of weight-gain during pregnancy on birth-weight in this population cannot be estimated. The use of tobacco and alcohol by the mother, as well as inadequate nutrition, have been shown to have a detrimental effect on birth-weight of the infant[12,13,14,15]. Hatch and Bracken[15] state that studies on the use of marijuana by the mother have been inconclusive. Cocaine use by the mother has been shown statistically to reduce the birth-weight of the infant[16]. Shiono et al[5] concluded that factors such as maternal smoking and alcohol use during pregnancy, the sex of the child and maternal weight-for-height percentile were "insufficient" to explain their recorded R/E differences. With reference to the data at hand, McLaughlin et al report that Caucasians and Hawaiians have a significantly higher rate of drug use than Filipino and Japanese mothers. This leads to the conjecture that the observed differences in mean birth-weights, especially during the preterm period, might be even greater if drug use was an extraneous variable in the analysis.

Conclusion

In conclusion, the result of these analyses of certificates of live births in Caucasian, Filipino, Hawaiian and Japanese groups raises 2 important questions for future research: (1) What birth-weight standards are most applicable for Asian and Pacific Islanders; and (2) what are the implications of the R/E-specific mean birth-weight differences relative to mortality, morbidity, and developmental outcome?

(Continued on page 249) ➤



FLIGHT SURGEONS WANTED.

Discover the thrill of flying, the end of paperwork and the enjoyment of a general practice as an Air Force flight surgeon. Take flight with today's Air Force and discover quality benefits, 30 days of vacation with pay each year and the support of a dedicated staff of professionals. Enjoy a true general practice on the ground, with the kind of stimulating challenge that will get your medical skills airborne. Talk to an Air Force medical program manager about becoming an Air Force flight surgeon. Call

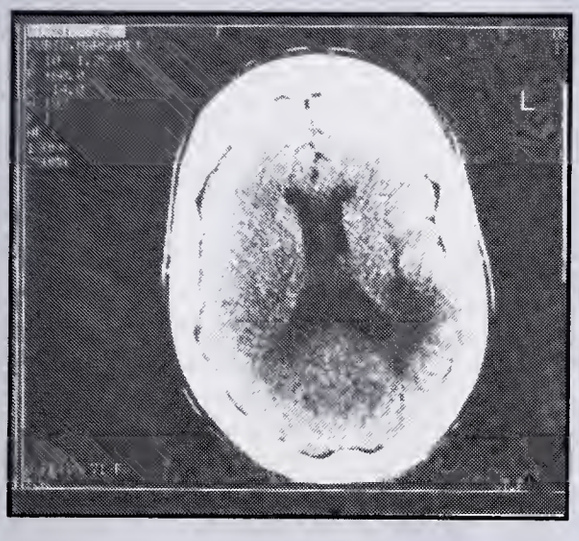
USAF HEALTH PROFESSIONS
TOLL FREE
1-800-423-USAF

AIR FORCE

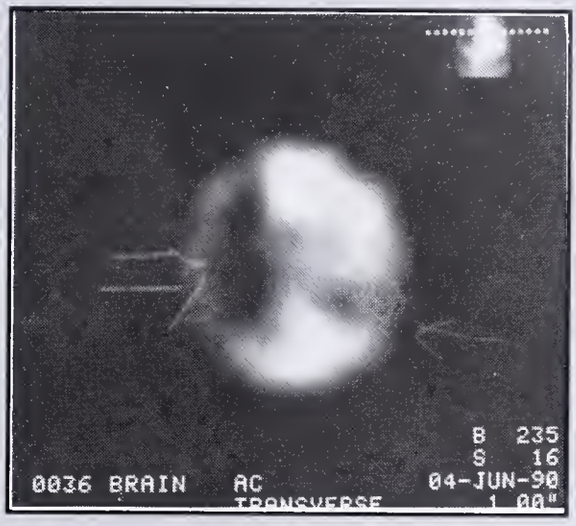
NUCLEAR MEDICINE TEACHING FILE

Technetium HMPAO SPECT Brain Imaging

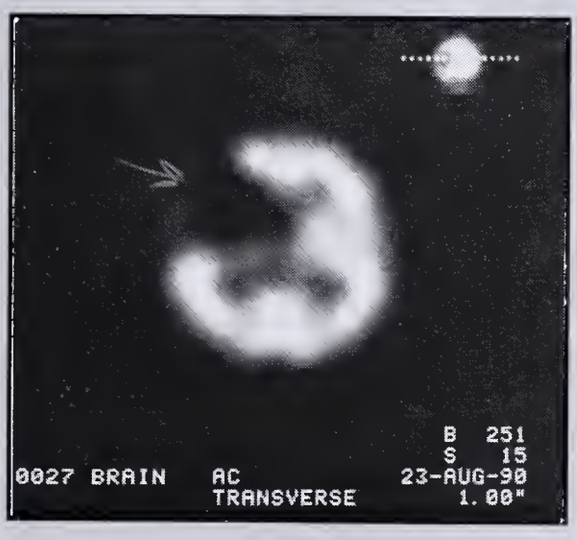
Tc-HMPAO crosses the intact blood-brain barrier and is incorporated into metabolically active brain cells in proportion to blood flow. Brain imaging with Tc-HMPAO can demonstrate cerebral infarction immediately after the acute event, well before CT changes are evident.



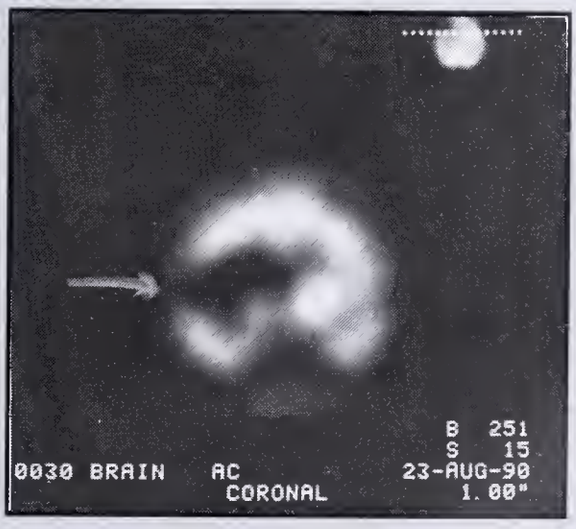
1. CT study in this 71 year old female shows a small infarct of indeterminate age in the left parietal lobe.



2. HMPAOP
O scan on the same day shows a large right middle cerebral artery infarct (large arrow) in addition to the left parietal lobe infarct small arrow).



3. Transaxial view showing an infarct of the right frontal lobe and right basal ganglia in this 70 year old female with left sided weakness and confusion.



4. Coronal view in the same patient.

Nuclear Medicine — Non-invasive, physiologic imaging

PACIFIC RADIOPHARMACY, LTD.

A JOINT VENTURE OF
QUEEN'S MEDICAL CENTER, KUAKINI, SAINT FRANCIS,
STRAUB AND THE HONOLULU MEDICAL GROUP.



The most flexible people in the equipment leasing business.

Need an equipment lease? The folks at GECC will bend every which way to see that you get one.

First, we look at the situation from your point of view. Only then do we put together a financing package that's tailor-made to fit your company.

And stretch your money to its maximum value.

But who knows? Together we may decide an equipment lease is not the wisest move for you.

Not to worry.

We're just as flexible with our equipment loans.

GECC Financial

EQUAL HOUSING LENDER

Member FDIC. GECC Hawaii Leasing is a division of GECC Financial a unit of General Electric Capital Corporation. 700 Bishop Street, 9th Floor: 527-8333



Prescription drugs for the indigent

The Pharmaceutical Manufacturer's Association has come out with a 1992 Directory of the Prescription Drug Indigent Programs. This Directory is available free to every practicing physician— particularly to those in Hawaii who see DHS clients, those under SHIP and any of the poor, the near-poor, the under- and the uninsured patients. It is also free for the asking by all medical facilities. It can be obtained from your visiting drug reps or from the PMA, 1100 15th St NW, Washington DC 20005.

There is no better way to introduce it to your attention than to reproduce herewith its "Introduction":

> The research-based pharmaceutical industry has had a long-standing tradition of providing prescription medicines free of charge to physicians whose patients might not otherwise have access to necessary medicines.
>
> To make it easier for physicians to identify the growing number of programs available for needy patients, the Pharmaceutical Manufacturers Association has created a pilot program consisting of two components:
>
> • This directory lists 59 prescription drug indigent programs that are provided by our member companies. The programs are listed alphabetically by company. Under the entry for each program is information about how to make a request for assistance, what prescription medicines are covered and some basic eligibility criteria.
>
> • Physicians will also be able to obtain up-to-date information for using a toll-free PMA hotline:
>
> 1-800-PMA-INFO
>
> When physicians provide the operator with the name of the prescription medicine they require, the operator will refer the physicians to the appropriate company programs.
>
> While these programs of America's pharmaceutical research companies are an indispensable safety net for the neediest patients, they cannot be expected to solve the larger national problem of access to medical care, including prescription drugs. The pharmaceutical industry will continue to work cooperatively with those seeking public and private sector solutions to these larger problems.

This is an impressive effort on the part of 59 PMA members. We have scanned the booklet and have noted that many of the more commonly used prescription drugs are listed under their maker's name.

There has been some criticism directed at the requirement that each manufacturer must be contacted through an 800 number individually; calls to the PMA will refer the caller to contact the particular drug company. This is quite understandable because each manufacturer has specific instructions that vary greatly one from the other.

We note with pleasure and commend two companies: (1) Smithkline Beacham Pharmaceuticals for its Indigent Patient Program that requires a bare minimum of eligiblity requirements; and (2) the Upjohn Company's program that is even less restrictive—in fact it allows the physician to do it all via its local drug rep!

We also have noted, with approval, that the person responsible in nearly all instances is the patient's physician. It may be an onerous task—some of the social work can be delegated to staff, of course—but the responsibility is the PMD's. This approach is a compliment to the physician's status as the patient's advocate.

Our emphasis on a minimum of restrictions with which the PMD must contend does not detract from the pharmaceutical companies' insistence on detailed information about the patient's real need for the medication, which the patient might otherwise not obtain, for a great number of reasons that are mostly the result of the inordinate cost of drugs these days. We are all aware, as practicing physicians, that prescribing a medication does not automatically mean the patient will get it filled, much less follow the instructions.

As professionals, we have an obligation not only to become aware of this noble action by the pharmaceutical industry and to make use of its programs, but also, as Marion Merrell Dow Inc states: "Physicians are encouraged to participate in the spirit of this partnership by also providing their services free of charge."

J I Frederick Reppun MD
Editor

RACE, ETHNICITY AND BIRTH-WEIGHT *(Continued from page 246)*

ACKNOWLEDGEMENTS

The assistance of Thomas A Burch MD, George Tokuyama and Shigeo Tengan from the Research and Statistics Office, Department of Health, State of Hawaii, who provided the live birth certificate data, is deeply appreciated.

REFERENCES

1. Hawaii Department of Business and Economic Development. *The State of Hawaii Data Book: A Statistical Abstract*. 1988.
2. Connor A, Bennet CG, Louis LSK. Birth weight by race in Hawaii. *Haw Med J*. 1957;16:626-632.
3. Morton NE, Chung CS, Mi MP. *Genetics of Interracial Crosses in Hawaii*. Basel: Kargen; 1967.
4. Lin C, Emanuel I. A comparison of American and Chinese intrauterinegrowth standards. Are American babies really smaller? *Am J Epidem*. 1972;95:118-430.
5. Shiono PH, Klebanoff MA, Graubard BI, Berendes HW, Rhoads GG. Birth weight among women of different ethnic groups. *JAMA*. 1986;255:48-52.
6. Research and Statistics Office, Hawaii State Department of Health:1975.
7. Wegner E. The *Computation of Socioeconomic Status Scores for Census Tracts in Hawaii, Hawaii: and Suggestions for Their Use in Health Research* (Population Report No. 12). Honolulu, Hawaii: Research and Statistics Office,

(Continued on page 255) ➤

Maka O Ke Kauka

Russell T. Stodd MD

Successful and fortunate crime is called virtue.

No matter the HCFA departure of **Gail Wilensky** (she was kicked upstairs to become the President's "health adviser"), the Medicare Cataract Global Rate Preferred Provider Project, which is her brain child, has cleared another hurdle. The American Academy of Ophthalmology suit to stop the project was denied by a Cleveland U.S. District Court judge. The AAO will appeal.

HCFA hopes to make final site selections in Dallas and Cleveland this fall, and Phoenix should follow by the end of the year.

Provisions of the demo project clearly violate the Medicare fraud and abuse statute, as it applies to the doctor in the trenches, but HHS is permitted a waiver. The court noted, "testing alternative payment methods is a legitimate government purpose." Another example of sauce for the goose and guano for the foot soldiers. And as for the few who are bidding to swim with the alligators, the words of B. Franklin echo, "They that give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety."

Honor a physician with the honor due unto him.

After years of devoted leadership, great attention to duty, plus a constant sense of fairness, good will and tact, **Dr Bruce Spivey** is moving on from his post as executive director of the American Academy of Ophthalmology. Dr Spivey has seen immense changes during his tenure: The medical definition of our organization split into ophthalmology from EENT: The field of practice has been politically invaded by pretenders: The ethical prohibition on self-promotion has disappeared: The eye surgeon as technical clinician has aggrandized to nearly overshadow the academician and the entire reimbursement scheme for professional services has been restructured. Dr Spivey can depart with a great sense of accomplishment, pride in a job well done, and the comfort of reflecting on the gratitude and best wishes of his colleagues. He will be missed.

The dispensing of injustice is always in the right hands.

Diagnosis, therapy and quality of care are standards for all practitioners of medicine. Failure to measure up may result in sanction, license suspension, and/or legal action. But what about the PRO that monitors your work?

Peer Review Organizations and their physician reviewers continue to enjoy absolute immunity from legal action stemming from their quality-of-care rulings. A Missouri physician brought suit against

(Continued on page 253) ➤



Wouldn't It Be Great If You Came With A Lifetime Warranty?

If you were stamped out like cars or computers, you'd probably carry a warranty. But you don't spin off a production line. And you don't come with a lifetime guarantee. In fact, your chances of becoming sick or hurt — and forced out of work — are alarmingly high. About one in four to be precise.* You may not come with a lifetime warranty, but you can protect your income against the threat of disability with coverage from Mutual Of New York. Call us today.

*Health Insurance Association of America

mel r. hertz, MBA, CFP
1001 Bishop St., Pacific Tower Ste. 2800
Honolulu, HI 96813 (808) 599-4504

MONY
Mutual Of New York
The Mutual Life Insurance Company of New York, New York, N.Y.

Doctor: Dear Doctor: Dear Doctor: Dear Doctor: Dear Doctor: Dear Doctor:

–DEAR DOCTOR–

What did it cost your practice to implement the new HCFA 1500 claim form? Is your staff stressed out? Did your computer system survive all the insurance changes in 1992?

Most vendors of medical billing software promise you **freedom from paperwork** and **more time for patient care**.

But you still have to learn how to use their software, register patients, enter charges and payments, print claims, print statements, print reports, stock forms, do backups, etc...

Then, when insurance companies make changes, you have to contact the software vendor to make the necessary enhancements (not to mention **probably** paying for them!).

We at Hawaii Patient Accounting Services (HPAS) know there is a better way:

Here's what YOU do

- ☑ Provide up-to-date patient registration information
- ☑ Provide a completed charge tag for each patient encounter
- ☑ See more patients
- ☑ Enjoy your leisure time

Here's what WE do

- ☑ Register your patients and enter charges, payments and adjustments in our state-of-the-art billing system
- ☑ File insurance claims weekly (electronically to HMSA, Medicaid, and Medicare)
- ☑ Post insurance payments (electronically from HMSA and Medicaid)
- ☑ Mail cycle billing statements to patients after their insurance has paid
- ☑ Resubmit claims when they are rejected or lost by the insurance company
- ☑ Answer your patients' billing inquiries
- ☑ Provide weekly and monthly practice management reports
- ☑ Generate automatic custom collection letters
- ☑ Assign delinquent accounts to collection agencies electronically
- ☑ Provide rates and reimbursement consulting
- ☑ Charge you a reasonable fee, probably less than what it currently costs you perform these same tasks yourself

So, whether you do your billing manually or you already have a computerized billing system, you owe it to yourself to consider HPAS.

Hawaii Patient Accounting Services

April Wolfe • Assistant General Manager
86-260 Farrington Highway, Waianae, HI 96792
(808) 696-1547

Dear Doctor: Dear Doctor: Dear Doctor: Dear Doctor: Dear Doctor: Doctor:

Listen to your heart.

Sandra called me on the way to work to remind me about our family dinner tonight.

Emily left a message on my AMS: 'I love you, Daddy.'

I called her back and said, 'I love you, too.'

Nothing feels better than keeping in touch.

Island-wide coverage. Personalized service. And more cellular options to meet your communication needs. At Honolulu Cellular, we know phones aren't just for business any more. Because some things are too important to lose touch with.

Discover the communication choice you can depend on.

Only at Honolulu Cellular.



We feature state-of-the-art cellular phones by Motorola.



Honolulu Cellular

Hawaii's Cellular Leader

1161 Kapiolani Boulevard / 545-4765 • Grosvenor Center, 737 Bishop Street / 528-6161 • 98-1238 Kaahumanu Street, Suite 100 / 487-CELL

MAKA O KE KAUKA

(Continued from page 250)

two PROs and their physician members alleging violation of U.S. and Missouri constitutions, antitrust laws and the federal RICO act. The Supreme Court decided not to review the appeals court ruling, which provided that PROs are immune from retribution under the law.

Look for the ridiculous in everything and you will find it.

While on one hand Medicaid is pushing generic preparations as an economic measure, on the other hand the Attorney General is prosecuting generic pharmaceutical companies for fraud. To date, 29 people and 8 companies have been convicted. Recently, an executive was sentenced to 4 years in prison and fined $1 million for faking test information and hindering an investigation.

A good politician is quite as unthinkable as an honest burglar.

As if the PRO, the Medicare fraud battalion, the data bank, and OSHA were not enough, now **Senator Joe Biden**, the paradigm of plagiarism, and **Representatives Ted Weiss** and **Jim Kolbe**, have introduced measures to combat fraud and abuse in the health care industry. What a pity that they do not feel inclined to address the fraud and abuse in Congress.

Incest begins at home. If she ain't good enough for her kinfolks, she ain't good enough for us, son.

No longer is such "humor" in style, and certainly the problem of violence and abuse against children, spouses, and sometimes the elderly, is all too evident in our island state. Family violence occurs in all social strata, all races, ages, ethnic groups, and at all educational levels. A recently completed AMA protocol includes the following: Be aware of bruises and welts, orbital contusions, dislocated lenses, retinal hemorrhages or detachments, rope burns (especially to wrists, ankles, neck) abrasions and lacerations.

Do **not** attempt to prove abuse or pry into unrelated family matters, but reserve judgment, watch for impaired interpersonal relations, and try to deter-

(Continued on page 255) ➤

The General Contractor Who Speaks Interior Design.



Audrey Tanaka ASID Karen Nakamura CGR

Our unique team combines the know-how of a professional general contractor with the sensitivity of an interior designer. We do it all. From specific assignments such as kitchen or bathroom remodeling to room additions and complete interior or exterior design and construction.

We don't just remodel, either. We can take over – where the builder left off – to create a customized environment that fits your lifestyle. We also can work directly with you or your architect. And before we speak, we listen.

Showroom hours 10 to 5. Saturdays 9 to 4. License Number BC-5555.

REMODELING SPECIALISTS Hawaii

The General Contractor
Who Speaks Interior Design.
Call 735-9844 Fax 734-8351

3160 Waialae Avenue
Honolulu, Hawaii 96816
Division of Wallpaper Hawaii, Ltd.

All about BUSINESS IN HAWAII

Get the full story of Hawaii's business in a tightly written compendium of its economy, cultures, achievements and challenges.

Volume Discounts

1-9 - $5.95 ea.
10-24 - $5.50 ea.
25-99 - $4.95 ea.
100-199 - $4.45 ea.
200+ - $3.95 ea.

Crossroads Press, Inc.
P.O. Box 833
Honolulu, HI 96808
(808) 521-0021

Enclosed is $_____ for_____ copies of the 1992 Edition of ***All About Business in Hawaii.***

Add $1.95 for 1st class postage.

❑ Visa ❑ Mastercard ❑ Discover Card

Card Number Exp. date

Signature (required for charge orders)

Name

Address

City State Zip

THE LEASE WITH A GREAT BOTTOM LINE.



To keep costs in line, Goodsill, Anderson, Quinn & Stifel, the prestigious Honolulu law firm, leases its stylish office equipment through Bancorp Leasing.

Call it smart business—Bancorp Leasing makes a strong case for its competitive rates, flexible terms, professional service.

Whether you need copiers or computers, a telephone system or some suite furniture, do what many Island companies do. Give Bancorp Leasing a call at 537-8810. On the Neighbor Islands, 1-800-451-6022.

Bancorp Leasing of Hawaii

MAKA O KE KAUKA

(continued from page 253)

mine whether the injuries were adequately explained. When possible, take photographs before treatment is given, use color film and include the patient's face. If abuse is recognized, notify the appropriate social agency, and if the police are called, record the name of the investigating officer and any actions taken. Not rarely, when legal action ensues, the physician is likely to be the target of a negligence suit, so thorough medical records are essential.

Cupidity in sheep's clothing. Is it progress if a cannibal uses a fork?

Levamisole, a drug developed by Johnson & Johnson 30 years ago to treat farm animals, has been found to be effective medicine for human colon cancer. Annual cost today to treat a sheep, $14.95; annual cost to treat a human being (multiply by 100!)—$1,495. J&J claims it needs to recoup "tens of millions of dollars" it cost to prove the drug helps people. Yeah—right!!

Addenda.

▲ In some ancient cultures (like Maui today) mother's milk was used for eye infections.

▲ If H. Ross Perot were a doctor of medicine today, he would quit.

▲ A liberal is a person who tells others how to spend their money.

Aloha, and keep the faith.

rts

■

Erratum: Billion, not millions!

The AMA, with its vigorous Washington lobbying, its confrontation with HCFA, its orchestrated campaign to encourage physicians to directly contact politicians and HCFA (producing over 100,000 communications), succeeded in adding back $10 *billion* which Dr. Gail Wilensky and associates had cut from the Medicare budget.

RACE, ETHNICITY AND BIRTH-WEIGHT

(Continued from page 249)

Hawaii State Department of Health; 1980.

8. Cochran WG, Bliss CI. Discriminant functions with covariates. *Annals of Mathematical Statistics.* 1984;19:151-175.
9. *SAS User's Guide: Statistics. 5th Ed.* Cary, NC: SAS Institute, Inc; 1985, p. 956.
10. *Preventing Low Birth Weight.* Washington DC: Institute of Medicine; National Academy Press, 1985.
11. *The Health Consequences of Smoking for Women A Report of the Surgeon General.* Washington, DC: Public Health Service; U.S. Government Printing Office, 1980.
12. Mills JL, Graubard BI, Harley EE, Rhoads GG, Berendes HW. Maternal alcohol consumption and birth weight: How much drinking during pregnancy is safe? *JAMA.* 1984;252:1875-1879.
13. Rush D, Casano P. Relationship of cigarette smoking and social class to birth weight and perinatal authority among all births in Britain, 5-11 April, 1970. *J of Epidemiology and Community Health.* 1983;37:249-255.
14. Stein Z, Kline J. Smoking, alcohol and reproduction. *Am J Publ Health.* 1983;73:1154-1156.
15. Hatch E, Bracken M. Effect of marijuana use in pregnancy fetal growth. *Am J Epiderm.* 1986;124:986-1116.
16. Chouteau M, Namcrow PR, Leppert P. The effect of cocaine abuse on birth weight and gestational age. *Obstetrics and Gynocology.* 1988;172:351-354.
17. McLaughlin DG, Raymond JS, Murakami SR, Goebert D. Drug use among Asian Americans in Hawaii. J *Psychoactive Drugs.* 1987;19:85-94.

■

YOCON®
YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NOC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85



AVAILABLE AT PHARMACIES NATIONWIDE

PALISADES PHARMACEUTICALS, INC.
219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083



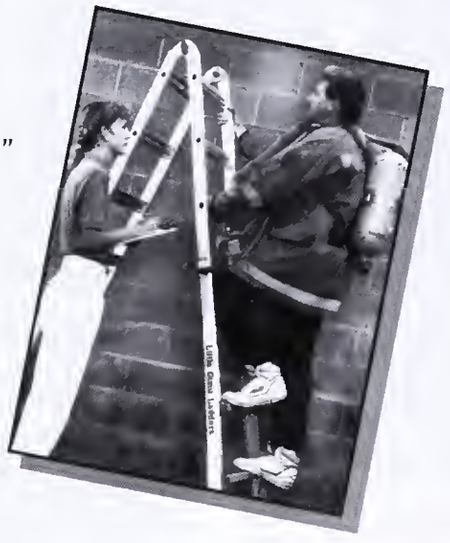
Functional Testing under the ADA

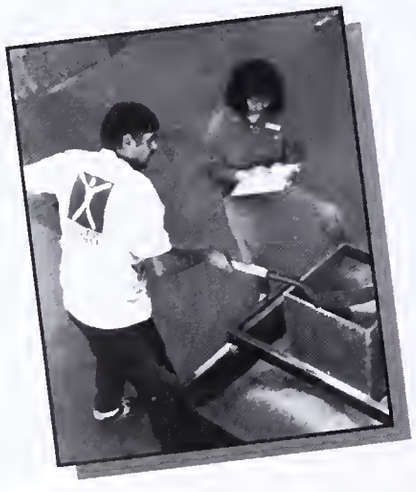
(Americans with Disabilities Act)

Do you need to determine whether your patient can perform the "essential functions" of a job?

Concerned about setting specific work limitations and "reasonable accommodations?"

Consider **CHART's** specific work capacity test which meets the requirements of the ADA.





Comprehensive tests evaluate a worker's abilities to perform specific work tasks of a particular job.

Call 841-6006 for more information to help get your patients working effectively and safely. Don't wait – start saving time and money now.

CHART®
Comprehensive Health and Active Rehabilitation Training

Outpatient physical rehabilitation and testing

Honolulu: 841-6006
Waipahu: 671-1711

CLASSIFIED NOTICES

To place a Classifed Notice, MEMBERS, please call Association Office at 536-7702. NON-MEMBERS, please call Leilani at 521-0021. 4 line min., approx. 5 words per line. Payment must accompany order.

BUSINESS OPPORTUNITY

MEDICAL CLINIC FOR SALE

Internal Medicine Primary Care Practice. Located at the Aiea Medical Bldg. Fully equipped & fully furn. Estab. 15 yrs. 25 patients/day. 3 exam rms., consultation rm., business/billing office, recep.area, complete in-office lab. Office approx. 960 sf. Terms negotiable. Serious inquiries & offers call: 528-2102; 622-7511 or write MEDICAL CLINIC, P.O. Box 2167, Hon., HI 96805

EMPLOYMENT OPPORTUNITY

FP/GP

For resort medical office. Send CV to Dr. Ben Azman, West Maui Healthcare Center, Kaanapali Maui, HI 96761 or phone 1-808-667-9721

OFFICES

MAUI

MAUI CLINIC BUILDING

* 728 Sq. Ft. Office
* X-Ray and Lab on Site
* Renovation Allowances
* Rental Allowance during Renovation
* Ample Parking
* 14 other Quality Medical Tenants in Bldg.

OPM Call John Sullivan

OIHANA PROPERTY MANAGEMENT 244-7684

HAWAII KAI MADICAL BLDG: 781 sq. ft. or 1,562 sq. ft. office sublease at attractive rents. Vahe Kenadjian (R) 735-0179.

McCormac k Properties, Ltd. 539-9600

OFFICE SERVICES

LOWER YOUR OVERHEAD

Nice Conf. Rms., & Offices Avail. Hourly and Full time, Receptionist, Tele. Ans. in YOUR Name, Much More, EXCELLENT IMAGE.

CallHEADQUARTES COMPANIES 522-9494

REAL ESTATE

MANOA

Best street. 4 bd., 3 ba. Divorce forces sale. Gaylyn Li-Ma 530-1266 (pager) 946-0646

SERVICES

LOCUM TENENS PROVIDED

Internal Medicine and Family Practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS AVAILABLE

Family Practice, Pediatrics, Urgent Care.
No agency fees. Deal direct. 923-2981.



Praxis gives Dr. Saito choices

Dr. Saito spends his free time with the family, now that he uses *Praxis!*

Praxis:

- **Files insurance claims**
- **Generates patient statements**
- **Receives, posts, tracks and deposits payments**
- **And handles all patient inquires**

All Dr. Saito has to do is enter the patient information in his OS/2 computer system*, and let *Praxis* take care of the rest!

Praxis offers the administrative services of a large clinic or hospital to physicians who prefer their autonomy, and gives them more time for their professional and personal lives.

For more information, contact us at 941-3363.

Praxis

HAWAII'S BILLING SERVICES FOR PHYSICIANS IN PRIVATE PRACTICE



IBM Business Partner

Praxis℠ is a wholly-owned subsidiary of DataHouse, Ala Moana Building, Suite 1500, 1441 Kapiolani Boulevard, Honolulu, Hawaii 96814 — *Praxis requires the use of an IBM-PS/2 computer in an OS/2 computing environment. — IBM, PS/2 and OS/2 are registered trademarks of International Business Machines Corporation



















Continuity-Of-Care™

24 Hours A Day

By combining your expertise and ours for complete patient care, our flexible Continuity-Of-Care™ programs enable us to design the optimum home care program for you.

Homecare Services

- Experienced and Dedicated Staff
- Patient/Family Training
- Home Planning Assistance
- Home Care Equipment
- Medicare/Insurance Specialists
- Complete Range of Products and Services
- Patient Educational Aids
- Medical Equipment Catalogs

Respiratory Homecare Services

- Professional Staff
- Patient Training and Education
- Detailed Patient Follow-up Program
- Respiratory and Homecare Equipment
- In- Service Program
- Rehabilitation Equipment
- Medicare Specialists

JCAHO Accredited

Hawaii's most complete homecare supplier

500 Ala Kawa Street
Honolulu, Hawaii 96817

845-5000

ABBEY
HOME HEALTHCARE

Journals
W1
HA
968

CTOBER 1992
Vol. 51, No. 10
SN: 0017-8594

Hawaii Medical Journal

CONTENTS

HMA COUNCIL HIGHLIGHTS 262

POST-INIKI
Random Hurricane Thoughts 264
David Elpern, MD

THE RIGHT TO DIE: AN UP-DATE ON THE LAW 268
Stephen J Wallach MD
Jeffrey P Crabtree Esq

HAWAII NO KA OI IN TERMS OF HEALTH CARE 274
Richard V Stenson

MAKA O KE KAUKA 279
Russell T Stodd MD

CLASSIFIEDS 278

U OF CALIFORNIA-SF
LIBRARY
SERIALS DEPT, BOX 0840
530 PARNASSUS AVE
SAN FRAN, CA 94143-0840

Hawaii Medical Journal
UCSF LIBRARY
Received on: 12-04-92

HAWAII MEDICAL ASSOCIATION 1856

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively

Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

HAWAII MEDICAL JOURNAL

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor: J I FREDERICK REPPUN MD
Founding Editor: HARRY L ARNOLD JR MD
News Editor: HENRY N YOKOYAMA MD
Contributing Editors: RUSSELL T STODD MD, FRANCIS H FUKUNAGA MD
Editorial Assistant: SUSANNE WEEKS
Publisher: STEPHEN LENT

Editorial Board
NORMAN GOLDSTEIN MD
ROBERT T S JIM MD
JAMES LUMENG MD
FRANCIS D PIEN MD

Publications Committee
MYRON E SHIRASU MD (Commissioner)
HENRY N YOKOYAMA MD (Chair)
ERLAINE BELLO MD, STEPHEN R P K BRADY MD, NADINE BRUCE MD, NATHANIEL PH CHING MD, OSAMU FUKUYAMA MD, ROBERT C GALAGAN MD, FRED GILBERT JR MD, ROBERT HOLLISON MD, AMOD JAIN MD, ROBERT T S JIM MD, JOHN H C KIM MD, H LORRIN LAU MD, JAMES LUMENG MD, BAL RAJ MEHTA MD, FRANCIS PIEN MD, J I FREDERICK REPPUN MD, MYRON E SHIRASU MD, KIM THORBURN MD, RONALD J WONG MD, TERRY C Y WONG MD, GUY N YATSUSHIRO, JEANETTE H J CHANG MD

OFFICERS
President: JEANETTE H J CHANG MD
Past President: STEPHEN J WALLACH MD
President-elect: ANDREW DON MD
Treasurer: JOHN S SPANGLER MD
Secretary: FREDERICK C HOLSCHUH MD

County Presidents
Hawaii: RICHARD K M LEE-CHING MD
Honolulu: PAUL A DeMARE MD
Maui: LEONARD H SAKAI MD
West Hawaii: MINOLU R CHENG MD

Delegates to AMA
CALVIN C M KAM MD
RUSSELL T STODD MD

Alternate Delegates to AMA
JEANETTE H J CHANG MD
ALLAN R KUNIMOTO MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Nonmember subscriptions are $25. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Printed in the U.S.A.

Neck and Back Pain is NOT hopeless....

It IS complex!

The Backworks Program is a multidisciplinary approach addressing personal responsibility, coping skills, biomechanics and psychosocial issues.



BACKWORKS HAWAII inc.

Active, Progressive Physical/Occupational Therapy

Gentle, but firm support for your patients since 1988.

945 Kamehameha Hwy. Pearl City, Hawaii 96782
456-7077

Mason & Evans

* Trial Lawyers *

We offer you dignified and aggressive representation in the following matters:

■ Professional Negligence ■
■ Personal Injury ■
■ Divorce ■
■ Criminal Defense ■

Appearances in all State and Federal Courts

244-3923

Edward F. Mason • Eugene S. Evans, Jr.

2041 Main Street, Wailuku, Maui, Hawaii

Highlights of the HMA Council Meeting of September 18, 1992

The HMA Council met on 18 September 1992. The highlights of its action follow. Members present were: S Wallach, J Chang, A Don, J Spangler, J McDonnell, C Kam, R Stodd, B Shitamoto, R Lee-Ching, M Cheng, HH Chun, R Kimura, H Fong, M Shirasu, C Kadooka, J Betwee, T Smith, G Goto, J Lumeng, W Chang, N Winn, A Kunimoto. Also present were: F Reppun, W Dang, Rep D Bainum; HMA counsel: Vernon Woo; Auxiliary President: Gwen Fu; HMA Staff: J Won, B Kendro, N Jones, J Asato, J Estioko and A Rogness (recording secretary).

The Council approved the concept and pursuit of a joint program with the University of Hawaii John A Burns School of Medicine for the certification and implementation of Continuing Medical Education in the State of Hawaii.

The Council approved implementing a Hurricane Iniki Relief Fund by way of accepting tax deductible donations to the Community Research Bureau to assist community shelters and health clinics on Kauai in hurricane-affected areas. Besides that, the HMA is already working with the State Department of Health to set up physician volunteers for Kauai relief. HMA has requested physicians to volunteer for a day or a week to relieve Kauai's physicians as needed and to work in Kauai's community shelters. Medications and medical supplies may be brought to the HMA office for transport to Kauai.

The Governor's Blue Ribbon Panel has released its report and recommendations regarding health care cost issues; a commission in the Department of Health is being formed to address these issues and to implement the recommendations of the Panel after the public has had a chance to be heard.

Prior to adjournment the members of the Council stood and applauded Stephen Wallach for his outstanding performance as president-elect and as HMA President these past 2 years respectively.

Andrew Don MD
Secretary

News on Health

. . . Do You Know These Facts About Breast Cancer?

How much do you know about breast cancer? The answer is probably "not enough," because few people like to think about the subject. But your health, and your life or the life of a woman close to you, may depend on knowing a few simple facts.

Did you know that . . .

- One out of every nine American women will develop breast cancer in her lifetime.
- Breast cancer can occur without any warning signs, and more than 80% of breast lumps are *not* cancerous.
- If breast cancer is diagnosed and treated early, the five-year survival rate is more than 90%.
- Modern mammography can reveal small breast cancers up to two years before they can be felt.

Average-size breast lump found by getting regular mammograms



There is no need to be afraid to learn about breast cancer. The facts are encouraging and reasssuring. If you remember only one thing about breast cancer, it should be this: **Your best protection is early detection.** Early detection provides the best opportunity to treat breast cancer successfully, and a diagnosis often does not mean removal of the breast.

Doctors recommend this three-step early detection program:

Schedule regular mammograms— your first screening mammogram by age 40, one every year or two to age 49, and every year after 50;

Practice monthly breast self-examination—your doctor can show you the proper method;

See your doctor for regular breast examinations—at least every three years until age 40, then every year.

Average-size breast lump found by regular breast self-examination

October is National Breast Cancer Awareness Month, a good time to get the facts. To find out more about breast cancer, ask your family doctor, or call these toll-free numbers: American Cancer Society at (800) ACS-2345 or the National Cancer Institute at (800) 4-CANCER. For information free of charge, write to the *ICI Pharmaceuticals Group Breast Cancer Education Center, PO Box 57424, Washington, D. C. 20036.*



Because One Size Doesn't Fit All...

New Humulin 50/50 is the tailor-made answer to individual patient needs. A unique combination of equal amounts of Regular human insulin and NPH human insulin, it will be useful in situations in which a greater initial insulin response is desirable for greater glycemic control.

Like Humulin 70/30*, new Humulin 50/50 offers the convenience and accuracy of a premix. And it can be used in conjunction with an existing 70/30 regimen.



New Humulin® 50/50

50% human insulin isophane suspension
50% human insulin injection (recombinant DNA origin)

The Newest Option in Insulin Therapy

WARNING: Any change of insulin should be made cautiously and only under medical supervision.

* Humulin® 70/30 (70% human insulin isophane suspension, 30% human insulin injection [recombinant DNA origin]).

Lilly

Global Excellence in Diabetes Care
Eli Lilly and Company
Indianapolis, Indiana
46285

HI-7911-B-249343 © 1992, ELI LILLY AND COMPANY

Random Hurricane Thoughts

David Elpern MD

On Friday, September 11, 1992, from the hours of noon until around 8 pm Hurricane Iniki raced across Kauai—its landfall being somewhere west of Waimea. Had it been directed here by some divine hand, it could not have been a more direct hit. However these things happen—some blind force directed it here to change the lives of the 50,000 people who call this island home. It was just bad luck.

Most of us were huddled in our homes, in the parts we felt were the most secure. Some retreated into their cars, were evacuated to shelters in schools, neighborhood centers and hotels. Our family cowered in our back guest room for the first part—then when the walls started to pulse in and out with the tempest, we moved to the guest bathroom—because we had heard that bathrooms were more secure due to the heavy pipes.

Occasionally, I'd leave our safe area to assess the situation in the rest of the house. At one point, as I approached the living room I heard (and felt) the shrieking, keening wind, and then realized that the two outside walls were now open to the elements. A whole segment of the front wall had been blown out, and Iniki's fury was playing havoc with our living room and the enclosed deck. This latter area had lost six of its eight large windows and was a virtual wind tunnel.

The whole experience was terrifying. Almost everyone on Kauai feared for their lives. Gabi, our 6-year-old daughter reacted in a touching manner. Early in the storm a large eucalyptus branch broke off and fell with a sickening crash on our roof. Gabi promptly threw-up; and thereafter, for the remainder of the storm and even until the next morning, she went nowhere sans bowl, lest she gag again, I remember having some chest tightness. Angina? I hope not.

Around 9 pm the storm moved on. By this time we had no electricity or phone, but there was still some water. Twelve-year-old Ashley, practically a teenager, took the last shower any of us would have for six days. I believe she even had hot water—a luxury we still do not enjoy two weeks out, as I'm writing this.

My memory of the rest of that evening is sketchy. We were all exhausted after the storm. All five of us slept together—fitfully because the mosquitoes were buzzing in our ears and our nerves were frazzled. Sometime during the night, Cleo, the kids' white cat, snuggled up to me. I awoke, wondering how she'd gotten into the house—only to remember (with a wave of depression) that the living room now had a 12-foot opening to the driveway.

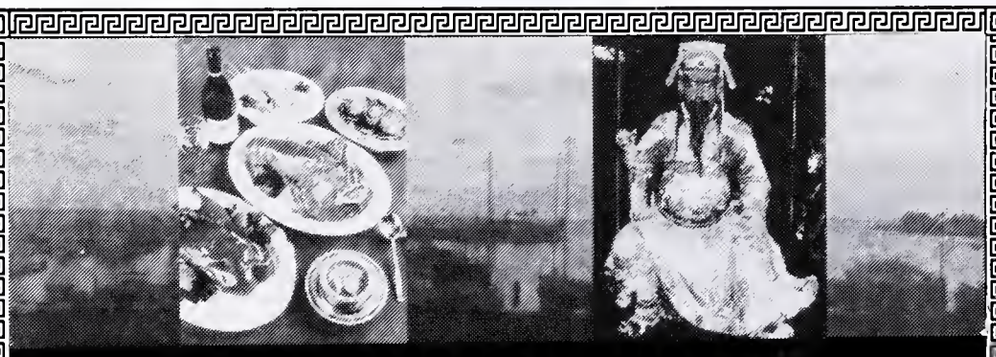
I won't bore you with too many details. Our lives have been disrupted—temporarily derailed. When we think of the problems we had and have, it is hard to admit that we are lucky. Yet, the citizens of Sarajevo face worse daily. Beirut has been like this for years. Somalia was worse than this in the best of times.

The outpouring of help has been extraordinary. FEMA (Federal Emergency Relief Agency), the Red Cross, The Salvation Army, and many other organizations were mobilized to pounce—and they did. I wonder why, if we can do all of this here, 1.5 million Somalis might starve to death in the next year?

Yet even so, this disaster has affected us all. Most here have a feeling of "disease." Most of our losses—in the grand scheme of things—are rather minor. Examining the way we feel may help us to empathize, to understand others whose lives have been uprooted. How about the patient with a recent diagnosis of cancer, HIV, coronary artery disease? Their personal universe has just been bombed. They come in to see me—the physician—and I pay attention to the broken part—how often do I consider the broken life? Now that all of our lives are fractured—it is in clearer focus. Will we be more sensitive human beings after this? If so, how long will it last?

What about the 26-year-old woman I saw yesterday. She lost her house. It was insured, but not the contents. Her husband and she had just bought their house four days before and hadn't got around to insuring the furnishings. For the past two

(Continued on page 266) ➤



DYNASTY II
Award Winning Chinese Cuisine

Featuring Numerous Delicacies such as Peking Duck, Imperial Shark's Fin & Live Ocean Seafood

- *Beautiful Sunset View Overlooking Kewalo Basin, Fisherman's Wharf*
- *Ample Parking*
- *Luxurious Chinese Antiques Ambiance*
- *Spacious, Private Banquet Facilities*
- *Luncheon Buffet*
- *Orders to Go*
- *Gift Certificates Available*

DYNASTY 皇廷酒家

Lunch: 11am to 2 pm • Dinner: 5:30 pm to 10 pm
Ward Warehouse • Second Floor • 1050 Ala Moana Blvd.
531-0208

close at hand



THE QUEEN'S MEDICAL CENTER

A QUEEN'S HEALTH SYSTEMS COMPANY

years she's been trying to conceive. Her husband checked out okay. She was pregnant 10 years ago, had an abortion and feels guilty about it. How much can someone take? I gave her an antihistamine for her hives. A paltry offering.

We all feel for the old people. What must it be like to lose your house and belongings when you are 80 years old? One octogenarian put it this way: "Losing my house is okay, but, at my age, I'll never see my trees grow again." The elderly, especially, suffer when they are uprooted. Many are now living in garages next to the homes they once had.

We're all trying to look for something positive from this experience. I asked my three daughters what was the best part about the hurricane, thinking they'd say "no school," or something like that. The first time I asked, each said "There's nothing good about it." A few days later, when I asked again, Gabi said "No one died, and we still have our house." Poignant, from a 6-year-old. People will talk about the Aloha Spirit and helping others—but I don't know that what we've been through makes observing all of that so special.

Looking at some of the ruins of the grand hotels and the beach houses of the very wealthy reminds me of Shelley's "Ozymandius."

At times like this the dead poets speak to us most clearly. Somehow, I usually return to Gerard Hanley Hopkins or Emily Dickinson. This time it was Hopkins.

> And for all this, nature is never spent;
> There lives the dearest freshness deep down things;
> And though the last lights off the black West went
> Oh, morning, at the brown brink eastward, springs—
> Because the Holy Ghost over the bent
> World broods with warm breast and with ah! Bright wings.
> Round the decay
> Of [these] colossal wreck[s],
> Boundless and bare,
> The lone and level sands
> Stretch far away.

■

Addendum:

September 26, 1992

Dear Friends,

Your calls and letters have been very comforting. Thank you very much for your concern. It is deeply appreciated. Much more meaningful than the sound of one hand clapping.

Today is Iniki plus 15 days. Electric power was restored to our clinic building yesterday and with it air-conditioning. This is one isle of coolness in an otherwise torrid locale.

Elsewhere on Kauai, few have electricity or phone. All hotels are closed and thousands are now unemployed. Almost all of us have damaged houses. Slowly the power poles are being replaced (more than one-third were downed by Iniki).

Our family was more fortunate than some others. Our house is still standing. The living room lost a large picture window on one side and about half of the wall including windows on the other. Scores of trees buried the front of the house and the backyard is a chaos of downed trees.

A month ago, if the electricity went off for half an hour, it was viewed as a great inconvenience. We've been without power for two weeks now. It seems normal to sit in the evening by candlelight and use flashlights when taking the kids upstairs to bed.

Who thought we'd get so used to taking cold showers that they were welcome, not just routine? We did go six days without running water. When it was restored last week, it was a great relief. One can do without electricity and phones quite well—water is central to our lives.

It's taken two weeks to even feel like sitting down and writing something. Even now, it is a chore. So much has changed here, so rapidly. There's a collective sense of the doldrums. Everything takes longer to do, we're getting more sleep, but are constantly tired. Is the black dog of depression hovering over the entire island?

The experts speak of PTSD (post-traumatic stress disorder) and other agronomic phrases. Formulas are great up to a point, but knowing the jargon doesn't help that much. Time must pass before our biosphere, and with it us, is mended.

David Elpern

PHYSICIANS, THERE ARE TWO KINDS OF FLEXIBILITY IN THE ARMY RESERVE WE THINK YOU'LL LIKE.



One, time. We know how tough it is for a busy physician to make weekend time commitments. So we can offer the kind of flexibile time scheduling that allows a physician to share sixteen hours a month with his or her country. We can arrange a schedule to suit your requirements.

Two, the opportunity to explore other phases of medicine, to add a different kind of knowledge-the challenge of military health care. It's a flexibility that could prove to be both stimulating and rewarding, with the opportunity to participate in a variety of programs that can put you in contact with medical leaders from all over the country.

See how flexible we can be; call our Army Medical Personnel Counselor:

1-800 432-7279

BE ALL YOU CAN BE.

ARMY RESERVE



"I'm practicing medicine the way I think it should be practiced, sans the paperwork and administrative overload."

Owen Brodie, MD, joined CompHealth's locum tenens medical staff in 1989, after 21 years in private practice. Since then he's worked in temporary assignments in state facilities, filled in for attending physicians, covered for private practitioners across the country.

A pilot. A historian. A board-certified psychiatrist. Southern to a fault. Owen Brodie knows...

It's a great way to practice medicine

CompHealth

LOCUM TENENS

1-800-453-3030

Salt Lake City ■ Atlanta ■ Grand Rapids, Mich.

"EMCRBRVSHCFAAMACPT." NEED SOME HELP WITH YOUR SPELLING?

Pacific Software Inc.

Solutions for Hawaii's Physicians

- Designed and Developed in Hawaii.
- Largest Supplier of Office Management Systems in the State.
- Systems for Every Sized Practice.
- Data Processing Service.
- Servicing Hawaii's Medical Community since 1981.

PACIFIC SOFTWARE INC.

Pacific Software Building • 537 Pensacola Street • Honolulu, Hawaii 96814 • (808) 521-2800

The right to die: An up-date on the law

Stephen J Wallach MD *
Jeffrey P Crabtree Esq **

The previous article on the right to die and Living Wills was published in the December 1990 issue of the Hawaii Medical Journal. In that article, the authors noted that "many observers believe that Hawaii's living will law will be improved in the next legislative session, so be alert to future bulletins or information on this issue." Since that statement was written, new Hawaii and federal laws have indeed clarified many of the rights and responsibilities of patients and health-care providers faced with treatment decisions at the end of life. The "new" rules are straightforward. Hawaii law contains some unique provisions that benefit patients and health-care providers. Much of the ambiguity of operating under the "old" rules has been eliminated. This article summarizes the current law and offers practical advice for physicians on how to work with the new rules.

A. The new Hawaii Living Will law

On May 6, 1991, by an overwhelming margin, the Hawaii State Legislature passed a new Living Will law, which became effective July 1, 1991. The law provides:

1. A strong public policy in favor of the person's right to refuse treatment. Hawaii law provides that "all competent persons (age 18 or over) have the fundamental right to control the decisions relating to their own medical care . . . The artificial prolongation of life for persons with a terminal condition or a permanent loss of the ability to communicate concerning medical treatment decisions, may secure only a precarious and burdensome existence, while providing nothing medically necessary or beneficial to the person."

2. How is the Advance Directive/Living Will executed? The person's written instructions must be signed by that person or by someone else in that person's presence and at the latter's instruction. It must be witnessed by 2 witnesses not related to the person and not involved with the person's medical care. The document must be notarized (all signatures at the same time).

3. A person's instructions do not have to be in writing, but it is strongly recommended; verbal statements given to PHYSICIANS are sufficient. Hawaii law also recognizes a verbal statement or statements if they are consistent, made by the physician or to the patient's friend or relative. Such statements "may be considered by the physician in deciding whether the patient would want the physician to withdraw or to withhold life-sustaining procedures." However, as a general rule, there are fewer potential problems with written directives. It is sound policy to encourage written advance directives instead of verbal ones.

4. The person's medical record. The advance directive is to be made a part of the person's medical record.

5. What the physician has to do. An attending physician who is aware and in possession of the patient's advance directive must immediately take steps to certify that the patient is now in the condition described in the person's Living Will. Thereafter, the attending physician must: a) follow as closely as possible the terms of the patient's directive, or b) if the physician is not willing to comply with the patient's advance directive, the physician must arrange for transfer of the patient to another physician's care without unreasonable delay.

6. Revocation. Hawaii law makes it easy for a person to revoke his or her advance directive. It may be revoked at any time after it was executed by various methods, both written and verbal, including tearing it up, an unambiguous verbal statement to two witnesses, or just by notifying the attending physician of a change of mind.

7. Euthanasia. Nothing in the Hawaii law is intended to condone, authorize, or approve mercy killings or euthanasia.

8. Effect upon life insurance/suicide. Honoring the terms of a person's advance directive does not constitute suicide nor modify the terms of payout in an existing policy of life insurance.

9. If there is no valid advance directive. Hawaii law also has a "catch-all" provision. In the absence of a valid advance directive, "ordinary standards of current medical practice will be followed." This phrase was interpreted in the Crabtree case (*Hawaii Medical Journal,* December 1990), to include withdrawal of life-sustaining medical treatment for a comatose woman if she had previously and unambiguously indicated that she did not want to be kept alive if she had no reasonable expectation of a meaningful recovery.

10. Other states. Hawaii law recognizes Living Wills executed in other states if the out-of-state document substantially complies with Hawaii law.

B. Strengths of the new Living Will law

1. The new Hawaii law greatly expands the category of who can execute a Living Will. It goes far beyond the old limitation of allowing Living Wills only for those in a "terminal" condition.

2. It specifically recognizes that although written instructions are preferred, verbal statements by the patient can be sufficient to allow withdrawal of life-sustaining medical treatment.

3. It specifically recognizes that nourishment and fluids may be declined just as any other medical treatment. However, the new law requires a unique check-off provision (see paragraph 6 of the accompanying model Living Will form).

4. It permits a simpler certification process by a single physician.

* 1329 Lusitana St #804
Honolulu, HI 96813
** 500 Ala Moana Blvd #575
Honolulu, HI 96813

(Editorial note: Steve Wallach was the 1991 to 1992 president of the HMA; he has an outstanding record of representing organized medicine's educational efforts in Hawaii and at the State Legislature. Jeff Crabtree, who practices law, brought the first case to the attention of the legal system in Hawaii, of the "right to die," on behalf of his mother at her terminal illness. This article is a collaborative effort by the two most well-informed authorities on the subject in our community.)

C. The new Hawaii law for health-care power of attorney

This new law became effective June 12, 1992. Hawaii law now expressly permits persons to appoint a substitute decision-maker (sometimes called a proxy or attorney-in-fact) to make health-care decisions for them if they become incapacitated as determined by a physician. This is a major improvement, because under earlier Hawaii law it was clear that such appointments were valid for financial decisions such as selling the family car or getting into bank accounts; however, the law was somewhat vague as to whether or not such appointments were valid for health-care decisions. Now, they clearly are valid, and a physician may legally rely on them in consulting with a patient's friends or family members (or whoever is appointed).

The person appointed as proxy is allowed to make the ultimate decision that may lead to the patient's death: To withdraw or withhold life-sustaining medical treatment such as tube feeding, hydration, or surgery. However, the proxy can make this decision only if such authority is explicitly set forth in the patient's health-care power-of-attorney document. If this specific wording does not appear, then it will be presumed that the patient did authorize the proxy to withdraw such forms of life-sustaining medical treatment.

D. The new federal law: The Patient Self-Determination Act

As of December 1, 1991, all states and most health care facilities must comply with new Medicare and Medicaid rules regarding each patient's right to control his or her health care treatment. The amendments are known as the Patient Self-Determination Act (PSDA), enacted by Congress and signed by President Bush as part of the Omnibus Budget Reconciliation Act (OBRA) of 1990 (PL 101-508).

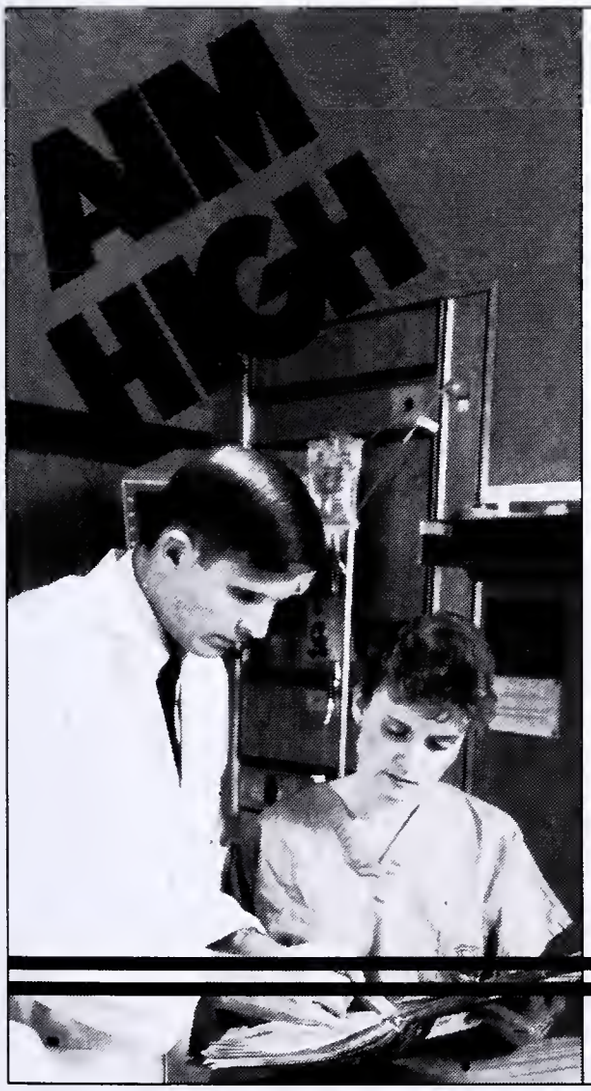
The new federal law applies to all Medicare and Medicaid organizations (not individual doctors), and specifically includes hospitals, nursing facilities, home health agencies, hospices, and prepaid health care organizations. It requires them to provide written information to inpatients regarding their rights under state law concerning advance directives, maintain written policies about the institution's approach to advance directives, and includes other administrative and technical requirements concerning advance directives. The new federal law also forbids the health care organization from applying restrictive conditions on the provision of care or otherwise discriminating against a patient based on whether or not the patient has executed an advance directive.

The intent of the new federal law is to help individuals understand they have strong rights regarding their medical treatment, and to help them exercise those rights if they wish. This should help avoid problems and litigation over the initiation or continuation of unwanted, life-prolonging medical treatment.

E. Practical issues for physicians in Hawaii

1. Overview. These new laws have legalized what had been a growing trend across the United States—making it easier for

(Continued on page 270) ➤



BE AN AIR FORCE PHYSICIAN.

Become the dedicated physician you want to be while serving your country in today's Air Force. Discover the tremendous benefits of Air Force medicine. Talk to an Air Force medical program manager about the quality lifestyle and benefits you enjoy as an Air Force professional, along with:

- 30 days vacation with pay per year
- Dedicated, professional staff
- Non-contributing retirement plan if qualified

Today's Air Force offers the medical environment you seek. Find out how to qualify. Call **USAF HEALTH PROFESSIONS TOLL FREE 1-800-423-USAF**

AIR FORCE

patients to refuse futile or end-of-life treatment if they prefer to die. The patient has a basic right to be free of unwanted medical treatment, including life-sustaining treatment, such as food and water. Tube-feeding is considered a medical treatment which may be refused just as chemotherapy.

There is no longer any valid legal reason for physicians to insist automatically that a family should go to court in order for treatment to be withheld or withdrawn. This poses an enormous financial and emotional strain on the family and can cause inordinate delay. A fundamental purpose behind these new laws is that this most sensitive decision can remain where it belongs—between patients, their families and their doctors (and not lawyers and courts). Litigation should be reserved for situations where there is a doubt or conflict about what the patient's desires are.

2. If You Object. If you, the physician, for personal or other reasons, are unwilling to withhold or withdraw life-sustaining treatment from a patient who does not want the treatment, then you are obligated to refer the patient to another physician who will comply with the patient's wishes. Treatment of a competent patient against his or her wishes will probably constitute an assault and/or battery, and may subject the physician to civil or even criminal liability. The patient will probably not be obligated to pay for unwanted medical treatment.

3. Check the Living Will/Healthcare Durable Power of Attorney. If your patient executed such a document, read it. These documents are not uniform. Some (old) Living Wills may apply only to people in a terminal condition. Some Living Wills request that food and water, as an exception, be continued, ie not withdrawn (this is extremely rare, but possible). In other words, do not assume it is permissible to withhold or withdraw life-sustaining treatment just because the family says "Uncle Harry had a living will."

4. Verbal Statements. The physician should, of course, proceed with more caution if relying on verbal statements alone; especially those reported by family members, as opposed to those from the patient directly. There are lots of professional, community and institutional resources available for you, the physician, to consult when you are not sure what the patient would have wanted.

5. Verbal statements to you, the physician. The Hawaii law is very lenient with patients and physicians in this regard. Again, written directives are preferred, but if that is not feasible or likely, much confusion and doubt will be removed if physicians talk to their patients about withholding or withdrawing life-sustaining treatment before they suffer a debilitating accident or condition. Most surveys show that only 15% to 20% of the population have a Living Will or other reliable documentary evidence indicating their preferences concerning withdrawal of life-sustaining treatment in the event of profound disability. Most observers agree this is more a result of ordinary procrastination rather than an unwillingness to make a decision on the subject. The polls have also shown consistently that between 70% to 85% of persons queried do not want to be maintained on life-support treatment if they are severely disabled with no reasonable chance of recovery.

As a practical matter, this means physicians have an important opportunity to discuss the issue with their patients, especially those who will likely be seriously disabled in the foreseeable future. If the patients have formed opinions on the subject, their wishes are more likely to be honored if they are in writing or reported to a reliable and objective person, namely their attending physicians, and recorded in their medical record

6. The family's wishes do not count. It is what the patient wants (or wanted before becoming incompetent) that matters. If the patient never made his or her own wishes known to anyone, any withdrawal of life support based solely on family wishes is a very sensitive area that should be carefully considered with the help of counsel, an ethics committee, or some other reliable source. (This rule, however, does not apply where there is a valid Durable Power of Attorney for Health Care, because the whole purpose of such a document is to detail the wishes of a substitute decision-maker.)

7. Distributing forms/advance directives. If Hawaii physicians are offering a Living Will, Durable Power of Attorney for Health Care, or other similar directive to their patients at this time; they should make sure it complies with these new laws. The older forms are sometimes highly restrictive, and the new laws require "magic words" to be used on certain issues; withholding or withdrawing of life-sustaining medical treatment, especially nourishment and fluids. If you are handing out a form that does not comply with the new laws, even if you have good intentions, you are doing a potentially serious disservice to your patients. The Hawaii Medical Association can easily help you make this determination.

8. Your patient says: "No problem; I already have one of those." For any patient who already has a Living Will or a Durable Power of Attorney for Health Care, it becomes important to find out what it says and when it was executed. If the Living Will was executed before July 1991, it is probably the old, 1986 version. Invariably, the patient should sign a new one to take advantage of the broader rights under the new statute (assuming those patients want broader rights). Similarly, if the patient has a Durable Power of Attorney for Health Care executed before June 1992, the broad, general document will not meet the new statutory requirements that certain powers (including the power to withhold or withdraw life-sustaining medical treatment) be explicitly stated in the document. Again, it would probably be important for them to have a new one made.

9. How to help your patients get good advice regarding advance directives. There are a number of organizations, firms and community agencies available to help people get the right forms, fill them out correctly, and distribute them properly. A listing of some of them is included in this article.

The authors recommend to physicians: The following is a model Living Will form and instruction drafted by Crabtree. He has made it available for anyone to use. It meets the requirements of the recent 1991 and 1992 laws. Prior versions may now be defective, so if you are distributing earlier versions, you are encouraged to change to the new format, or consult with an attorney. You are free to reproduce this form on your own stationery, or on blank stationery, or any other form you may choose. It includes optional sample instructions which may help the patient fill out the form.

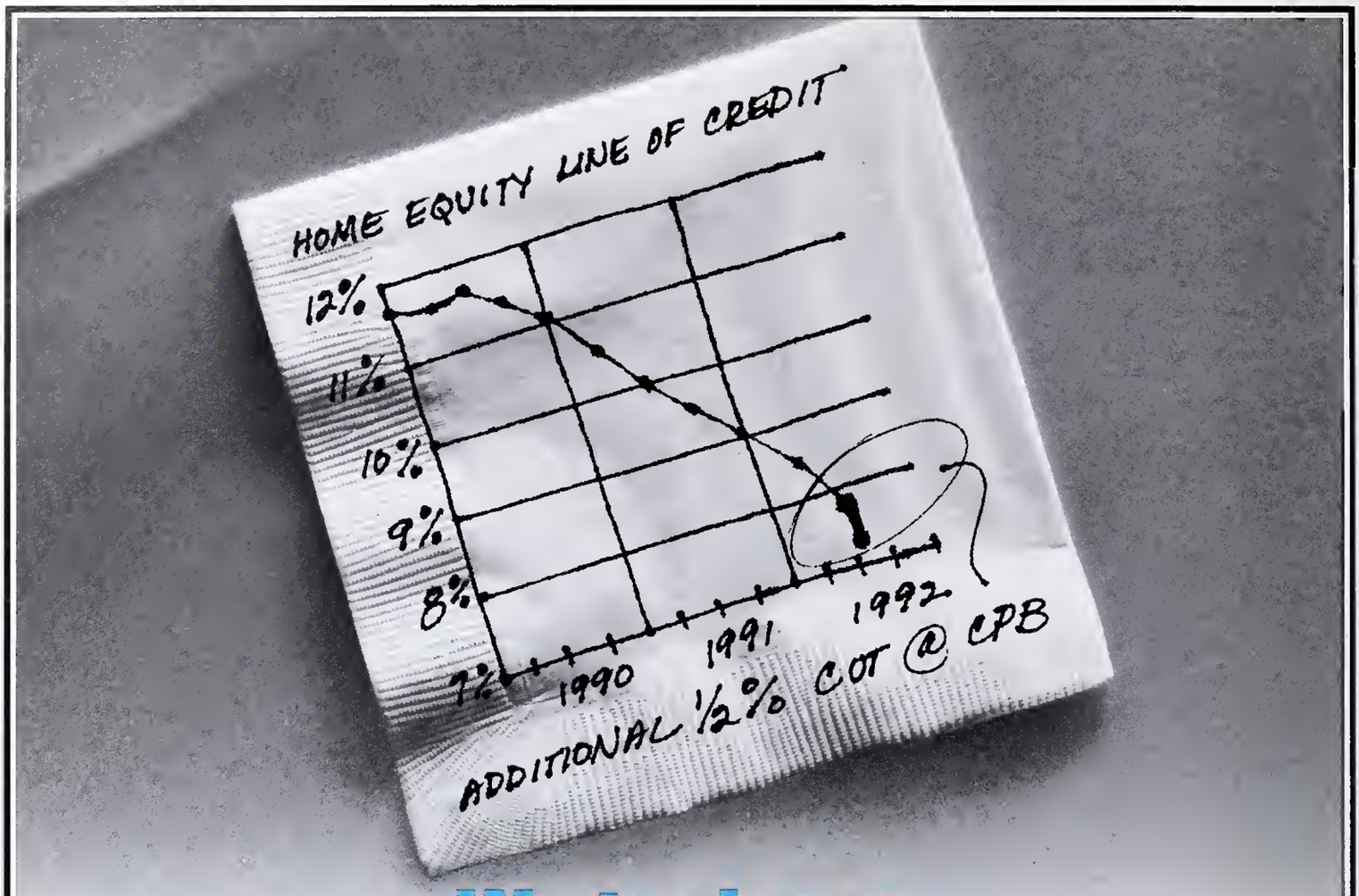
(See list of Community Resources Advance Directives on page 273.)

Remodeling

A Guide to Island Trends in Home Improvements



An advertising supplement to Pacific Business News, Hawaii Medical Journal, Hawaii Dental Journal, Hawaii Construction News



We took our lowest rate in history and still cut another ½ percent.

Compare our Home Equity Line of Credit with any other institution's. The lowest interest rate is just the beginning.

You see, we start by cutting .5% off our lowest annual percentage rate.* Compare our package. No points. No closing cost. No appraisal cost. No annual fees. No pre-payment penalty. No minimum draw. No charge for 50 checks. No charge for Purchase Security & Extended (Warranty) Protection.**

To make it completely hassle-free, we will make all the arrangements to transfer your present line of credit from another institution if you wish.

Call the branch manager at any of our 18 convenient branches statewide.

EQUAL HOUSING LENDER

Central Pacific Bank

We Put You First! Member FDIC

Main Branch / 220 S. King Street / Phone 544-0500

*Annual percentage rate may vary monthly, but will not exceed 18% APR. Certain restrictions may apply.
**Purchase Security & Extended (Warranty) Protection is in excess of other insurance. Certain conditions, exclusions & restrictions apply.

Contemplating remodeling your home?...

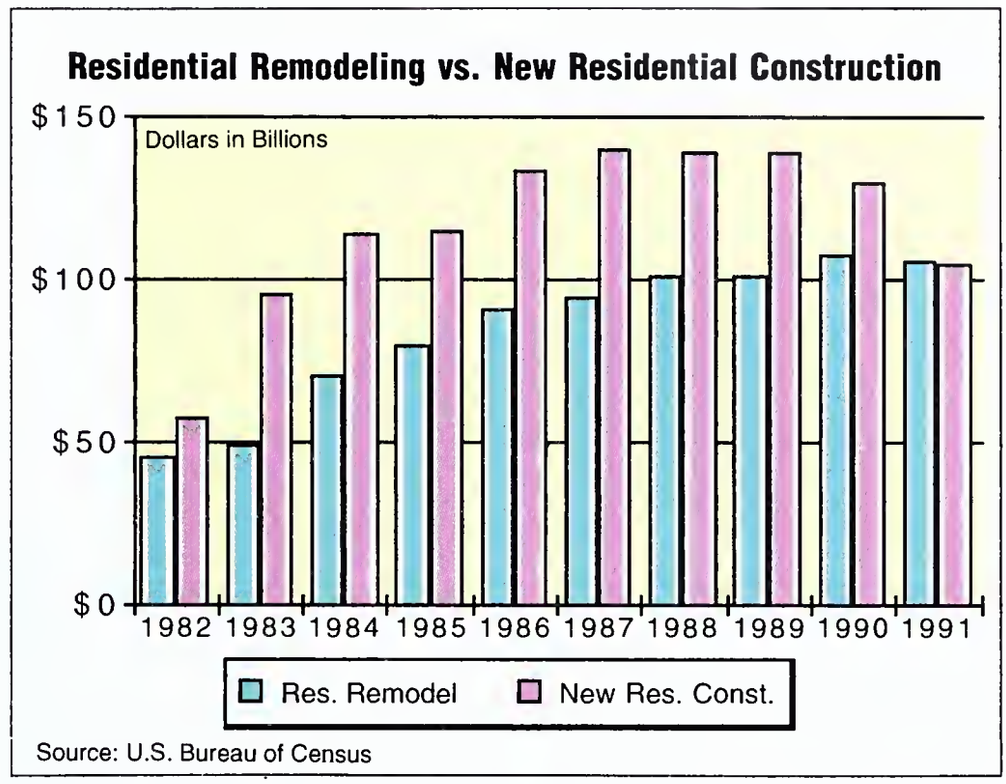
Helpful hints to make the job easier

With the interest rates coming down in the home market, many homeowners are choosing to remodel their home. And why not? It's much more economical to refurbish what you have than to go out and buy a new home.

Hawaii ranked 31st nationwide in the remodeling market last year. It's no wonder — the salt air that carries to all parts of the Island, not just the waterfront, forces many homeowners to overhaul what they have.

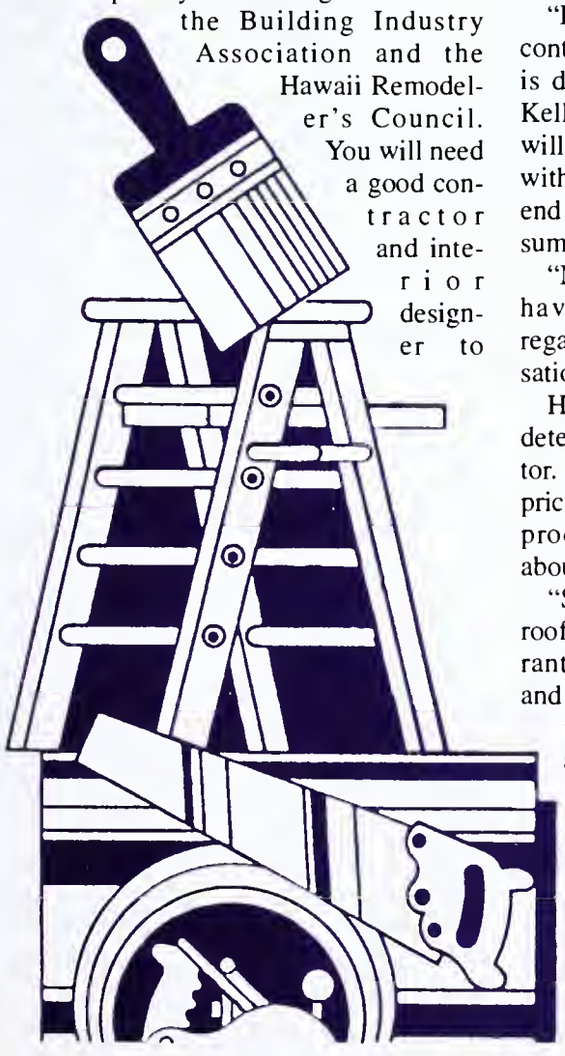
Houses in older neighborhoods are also getting a new look. As homes are being passed to the next generation, new families are taking a good look at their present and future needs.

With a bit of creativity and resourcefulness, remodeling plans can solve problems or turn old homes into new ones.



The first step

Once the decision is made to remodel a home, it is essential to contact key people who can point you in the right directions: the Building Industry Association and the Hawaii Remodeler's Council. You will need a good contractor and interior designer to help you assess your needs.



"It's important to deal with a licensed contractor, someone who knows what he is doing," said James Kellar of James Kellar & Associates. Sometimes people will try to take a more inexpensive route with an unlicensed contractor, which may end up being more costly and time-consuming in the long run.

"Not only that, but licensed contractors have to adhere to certain state laws regarding liability and workers' compensation," Kellar said.

He pointed out that price is not the determining factor in choosing a contractor. "You don't choose a doctor solely on price. You choose the service, not just the product delivered. You have to think about the quality of both."

"Some of your improvements, such as roofing, will have a 20- to 30-year warranty. If your contractor is established and reputable, you know he'll be around in the years to come to service you," according to Roy Hung of Sears Installed Home Improvement.

The interior designer helps you look at the materials available to you in the colors and styles you want. He or she also obtains permits, if necessary.

"We interior designers do more than just coordinate the colors," said Marilyn Moss of SMG Inc. "We have to check to see that lights and outlets are in the right spots. We check for details, like ensuring that the lights in the bathroom are positioned so that no shadow is cast when you're shaving or making up.

"We find solutions for attaining a living or working environment that not only meets the clients' preferences for comfort and luxury, but are practical in every sense as well," she said.

Brian Shuckburgh, president of the American Society of Interior Designers, feels that one of the driving forces in current remodeling projects is the aging process.

"People are planning for their ... retirement, their old age, and are incorporating features that will accommodate both current and future needs," he said.

Little touches

Also known as builder's hardware and accessories, these items include door hardware, locks, hinges, doorstops, cabinet hardware and bath accessories. Leading architects and designers have always paid attention to these seemingly minor items. As one of their mentors, renowned architect Mies van der Roes, wrote "God is in the details."

Continued on page B-4

Bill Fiddler, president of Fiddler's, one of the nation's oldest decorative hardware firms, said, "We all interact with these things many times a day, usually without notice, and most of these items are mechanical, subject to stress, wear and tear, so their quality should be foremost in your selection.

"Their design, quality, and performance impact the function and value of what may be your most important asset — your home. Quality is a function of the design, material and workmanship."

Recent trends include:

● Traditional European or American design is combined with contemporary finishes, such as curved colonial-style door levers finished in high-polished chrome. This is a good design wed to new technology ... beautiful, easy to use and impervious to the elements.

● The newly passed Americans with Disability Act, which calls for accessibility to buildings for the physically challenged, is being addressed through the new styles and products available for the modern home. As our population ages, issues of function and safety are now receiving a lot of attention.

For example, door levers well suited for weaker muscles or stiffened joints and hinges and doorstops that allow passage for wheelchairs are now being used. These and other innovations will result in new designs that will benefit all.

● New materials to satisfy traditional functions are being used. These include doorknobs and cabinet hardware, bath accessories made of Dupont Corian or clear acrylics, and European-style tissue roll holders, instead of the spring-loaded roller.

● Different materials and finishes originated by Paris jewelry designers are combined for a stunning look. Gold-and-chrome combinations have become very popular, as are hardware items of polished chrome mixed with matte chrome accents.

Prices vary slightly, but market competition and the large selection available usually assures full value if the emphasis is on quality before lowest cost. Generally, 5 percent of a construction or remodeling budget allocated to these hardware and plumbing fittings will assure the best quality.

One of the largest growing areas of hardware is decorative doorknobs.

"It used to be that a doorknob simply got you in and out of a room," said Barbara Wolfley, vice president of A Touch of Brass. "Now, it adds the finishing touch."

Wolfley pointed out that a lot of expertise goes into the decision-making of door hardware — the swing of the door, the backset of the door, the width, etc. Her Architectural Hardware Consultants are certified to make sure that every application works for the client.

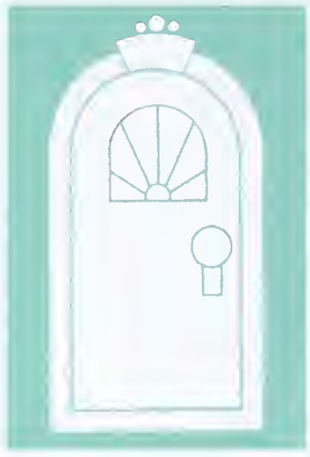
Although there are many alternatives, some people like the look of brass hardware in their home. However, Hawaii's salt air can lead to quick corrosion and discoloration. For those who absolutely must have brass, upkeep is extremely important.

"Don't use brass polish when your hardware is still new. Instead, frequently clean your brass hardware with Jubilee, which helps to protect the lacquer. When the lacquer on the brass eventually wears off, you will need to use brass polish," Wolfley said. This holds true for all fixtures, whether in the bathroom or the kitchen.

The ultimate answer can be found in the Diamond Finish hardware, which will be available by the end of the year. Its looks like brass, only darker, richer, and does not tarnish. The company is starting off with entry doors, but will eventually get into other areas of hardware and fixtures.

Since your hardware adds the finishing touches to any home, this part is probably the last step in the remodeling process. Wolfley recommended to start looking for these items as soon as you know what you want, to cut down on manufacturer price increases and shipping costs.

"It used to be that a doorknob simply got you in and out of a room...now it adds the finishing touch."



Optical illusions

If the goal is merely increasing the space of an interior without knocking down any walls, it is possible to look at glass block.

"Glass block is an increasingly popular choice for remodeling projects," said Philip Iodice-Kristianson, president of Hawaii Glass Block. "This versatile material has the capability of opening up tight spaces in a home or office while still providing privacy. It also lets more light enter a room."

He added that glass block is an innovative material for countertops and floors as well.

Marble has become another alternative in beautifying the home.

"The look of natural stone is impressive," said Lenny DeWitt of Marble Innovations. "But more important, it helps increase the value of a project for resale value advantage.

"In the past, marble was regarded as an expensive option, but we've brought prices down enough so that almost any home can use it," DeWitt said.

At his company, marble prices start at $3.95 per square foot, which is almost a third less than other marble dealers, he said.

The kitchen

"The kitchen has become more than a kitchen," said Dan Danenberg, owner and president of Eurokitchens. "In addition to the traditional functions of preparation, cooking and eating, the room has expanded into an entertainment and office area in some homes."

This means making room for a television, stereo and even a computer in the kitchen.

Danenberg noted that the kitchen has become much larger than it used to be. Even without the luxuries of audio/visual stations, other lifestyles trends have affected the kitchen.

"It's more common for households now to have more than one cook," he said. "We now have to look at installing more than one food preparation area and

Continued on page B-5



cooking area, even a couple of sinks.

In a world where convenience is everything, people are also looking for a more functional kitchen. The latest in appliances is what Danenberg calls the "Appliance Garage."

It is exactly that — a place to store every appliance, from the toaster to the mixer to the coffee maker to the can opener. Everything is plugged in and ready to use when pulled out.

When not in use, the garage conceals these appliances to keep your kitchen neat and organized. In addition, it keeps the dust and grease off them.

In fact, there are "pull-outs" for almost every conceivable function: Spices, pots and pans, laundry, TV trays, pantry, to name a few.

"These are very costly and no one needs them all," Danenberg said. "Simply choose the most important options to fit your needs."

Still, trends in the Islands indicate that homeowners are going back to the more traditional look — stained wood, and more white than contemporary black.

"The white being used is more of a stained white, for a natural, lighter look," Hung said.

Moss agreed, noting that more Hawaii people are opting for a more open, lighted feeling for their homes.

The bathroom

All rooms in the American home are becoming an expression of its owner's lifestyle.

In elegant homes, no longer will the bath be out of place because it has been put together with a limited choice of materials and products. The new products available today are bound to be in the mainstream and not passing fads, as they are practical and attractive improvements in things we use every day.

The bath is now part of gracious living — a personal and comforting environment that has been carefully designed to combine function with a quiet understated sense of luxury and well being.

Customized showers have been created for individual lifestyles.

These "Power Showers" were the ultimate status symbol in the offices of Hollywood producers and New York dealmakers just a year ago and have become necessities in today's busy home.

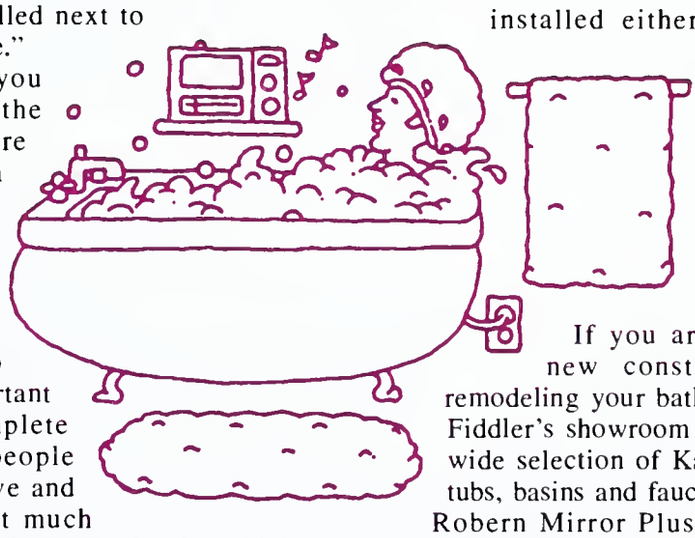
Shower components may include wall-mounted handshowers, which have evolved to replace the conventional shower head. Functions vary for different lifestyles, but choices range from aerated sprays, invigorating sprays, watersaving adjustments, pulsating massages and more.

When installed on a vertically adjustable wall bar and equipped with a long connecting hose, you have the ultimate in luxurious yet sensible showering. The shower can be adjusted for all members of the family, and bathing children or animals is easier. Personal washing is quick and comfortable, and maintaining the shower itself is easy and safer.

Also new for 1992 are "pressure-balanced" shower valves. These valves are now available from all of the major plumbing manufacturers.

The valves are engineered to instantly compensate for fluctuations in water pressure on the hot and cold lines, thus preventing scalding or cold water only from reaching the shower if another device or appliance in the home starts drawing water from the line.

Fiddler said, "The ultimate power shower will include wall-mounted body sprays, arranged much like an automatic car wash with the top spray positioned at shoulder level and the bottom spray just below the waist ... soap up, spin around, you're done! Just in time to answer the phone installed next to the commode."



And as you lunge for the phone, there should be a substantial safety grab bar in a convenient location. A good grab bar is important in the complete bath, as people remain active and independent much longer these days, and the risk of injury in the home is increased. Grab bars are available to complement all design themes.

Storage in the bathroom has often been taken for granted. It is either hidden away or so tacky but practical that you put the storage containers away before you let a guest see the bathroom.

Engineers at Robern Inc., working with researchers, have tackled storage and lighting problems in the bath and invented the Mirror Plus system.

Designed to replace the wall mirror above the sink and vanity, Mirror Plus is a sophisticated modular cabinet and lighting system. Unlimited design freedom with just four components allows the creation of more than 5,000 combinations.

Cabinets are built in three different widths, two depths, with three styles of tops, and may be surface or recessed mounted. Optional items include mirrors, shelves, task-designed lighting, convenience outlets for rechargeables, and fog-free mirrors.

Another trend is the "downsizing" of luxury baths to fit existing construction.

Kallista Inc., known for its large whirlpool baths, has recently introduced a small bath, 60 inches long by 32 inches wide, for replacing existing bathtubs in condominiums and houses. Available with or without a whirlpool, the tub is deeper than normal to allow luxurious soaking.

For anyone who is remodeling and short on space or who wants an an Island setting, Kallista offers the Kallispera model that can be installed in a corner.

This bathtub has a six-jet whirlpool system and is 19½ inches deep to permit blissful soaking. There is even a head cushion — in waterproof gold or silver — as an additional option.

Or how about the Kalligamos model, a 6-foot-diameter, 19½-inch-deep bathtub with a clover leaf interior shape. It can be installed either raised or sunken. And each Kallista bathtub is handmade and is available in virtually any color.

If you are planning new construction or remodeling your bathroom, visit Fiddler's showroom and see the wide selection of Kallista bathtubs, basins and faucetry and the Robern Mirror Plus system. A bathroom never has to be boring again.

One of important issues surrounding the bathroom, said Hung, is the state's water conservation efforts. The City & County of Honolulu has an ordinance that now requires toilets to flush only 1.6

Continued on page B-6

REMODEL WITH COASTAL
End Your Window Problems Forever

COASTAL

SOLID VINYL WINDOWS
MADE LOCALLY
20 Year Warranty

★★ Special discount to ★★
victims of hurricane Iniki.

Visit Our
Showroom/Factory
94-533B Puahi Street
SEE OUR SPECIALTY WINDOWS
Wapio Gentry Business Park

Call
676-0529 or 262-7600

MORIKAWA DRAPERY & CARPETS
"Serving Hawaii Since 1949"

- Carpets
- Custom Draperies
- Sheet Vinyl Flooring
- Vertical & Mini Blinds

FOR:
- Commercial
- Hotels
- Residential
- Condominiums
- Contract
- Service & Installation

Call us for monthly specials!

841-6025

1258 N. King
(Across From Kapalama Post Office)

gallons, as opposed to three.

Homes that currently have three-gallon flush toilets can keep them until they remodel, when they must be replaced with 1.6-gallon flush toilets.

Again, glass block has become a popular choice for bathrooms, particularly shower stalls. "Pittsburgh PC Glass Block carries a five-year warranty against leaking and discoloration," Iodice-Kristianson said. "And you don't have to build the glass wall all the way to the ceiling."

Other than that, the styles of bathroom accessories are very personal. Like doorknobs, the fixtures need to be cared for. Wolfley warned against toothpaste and Windex, as they only add to corrosion.

The finishing touch

No project is complete until the carpets, flooring, and window coverings are installed, and the choices today are staggering.

Carpets come in many styles, vinyl flooring options are endless, and window coverings range from ornate draperies to mini-blinds in exciting fabrics and colors.

Morikawa Drapery & Carpets has been helping Hawaii's residential and commercial owners solve their flooring and window problems since 1949.

With a huge selection of carpeting, draperies, vertical and horizontal mini-blinds, Morikawa Drapery is not only a full-service business but a "do-it-yourselfer" advocate.

"If you want to have the satisfaction of installing your own carpet, vinyl flooring, or mini-blinds, we will help you select the proper materials and give you the necessary pointers to make the job successful," said Alan Morikawa, the company's general.

"Installing your own floor and window coverings is now easier than ever and very cost-effective," he said.

And, Morikawa Drapery also carries Hotpoint Appliances for the kitchen.

For the window frames, Coastal Windows Inc. has a factory in Waipio Gentry Business Park that manufactures rigid vinyl-frame windows and doors. These windows are not vulnerable to Hawaii's humidity and salt air.

"One of the owners redesigned the rollers and other metal hardware in ordinary vinyl windows and replaced them with Teflon, stainless steel and nylon parts," said Marie Winner of Coastal Windows. "The result was a totally corrosion-free window system, the only window ever produced specifically for the Hawaiian environment."

She said many local windows are framed in aluminum and are becoming problems for homeowners. Although it is slightly cheaper to replace them with aluminum, they will inevitably have to be replaced again due to the deterioration familiar to thousands of Hawaii residents.

When the project is completed, the right piece of art is an elegant way to personalize your home or office.

Some art pieces can cost about $3,000 each. Li Schoolland of Double Eye Hawaii offers an affordable alternative.

By renting art for as low as $25 per month, most people can afford originals or graphics of the masters, both international and local. Elegantly framed works include Monet, Van Gogh, Picasso, Fumagalli, Otsuka and more. In addition to paintings, Double Eye also offers sculptures and has started to bring in works of tapestry.

"Leasing provides flexibility, improves the lessee's cash flow, offers fixed-rate financing and helps the art earn its keep," Schoolland said.

On the outside

Although Hawaii is surrounded by beautiful beaches, there are a few advantages to having a pool in your yard.

"Many pool owners have told me that the addition of a pool has helped keep their family members at home more often. They do more things together around the pool, like swim or barbecue," said Monte Morris, president of Wonderpool. "And with 'family values' being an issue now, pools can be a plus."

Keep in mind that if a yard is made up of more coral or rocky soils, this will cost more than yards composed of sand or red clay. And if a remodeler lives within the boundaries of the City & County of Honolulu, fencing requirements state that the fence has to be at least 4½ feet high.

"Wonderpools don't take too long to install — maybe three to four weeks," Morris said. "Other types of pools take from six weeks to almost a year to install."

The one advantage Wonderpool has is its vinyl-lined pools. They are more flexible, won't crack and have a 25-year warranty. Best of all, they are much more affordable than plaster or granite and require less maintenance.

Protecting your home

Once a remodeling homeowner has a home exactly as intended, it is time to think about adequate protection. Ever-changing technology allows ordinary citizens to have the latest in sophisticated

Continued on page 7

protection systems.

"When planning a home security system, it is easier and less expensive to make the wiring changes while you're building or remodeling," said Ricky



Kurihara, owner of Ricky Kurihara Electronics.

"Although the rewiring can be done at any time, it is easier to install the complicated wiring systems in a more unobtrusive way at the time of construction. So, consider a security system at the same time you plan your remodeling project."

Today's security systems let family members control what happens inside their home and around the perimeter. Intercoms, outdoor lighting systems, voice warning systems that announce to an unwelcomed guest that he is too close to your home, are just a few of the choices now available.

One of the newest inventions is a cigarette package-sized closed-circuit television surveillance camera that allows you to monitor any room in your home or the perimeter from any TV screen in the house. Just push a button and view the back yard. Push another button, and see who is at the front door. This system is also perfect for monitoring small children or the elderly.

Another exciting development is alarm window screens. With these, it is safe to leave your windows open and enjoy a cool breeze and still have tight security. Perfect not only for houses but apartments and townhomes.

Also available is a wireless sensor system that makes it possible to always hear the doorbell. The gadget makes it possible to work in any room of the house and still hear the doorbell when anyone arrives.

Since so much time and money is invested in remodeling your home, it only makes sense to protect your investment with an electronic security system.

Ready to start? The best bet is to call the Building Industry Association of Hawaii at 847-4669 for references of remodelers. Everything should be obtained in writing and contracts should specify the responsibilities and obligations of both parties.

SEARS



INSTALLED
HOME IMPROVEMENT

We're America's Largest Installer of Home Improvements With:

- FREE IN-HOME ESTIMATES
- PROFESSIONAL INSTALLATION
- QUALITY PRODUCTS WITH WARRANTIES YOU CAN BELIEVE IN (See store for details)
- CONVENIENT FINANCING PLANS

Specialists in:

★ ROOFING ★ GUTTERING
★ KITCHEN & BATH REMODELING
★ GARAGE DOORS
★ WINDOW REPLACEMENT
and a whole lot more!

CALL TODAY and let our professional kitchen/bath designers and roofing specialist assist with your home improvement needs.

All Sear Home Improvement is sold, furnished and installed by Sear authorized licensed contractor, C-4285.

ALA MOANA 947-0364 PEARLRIDGE 487-4264
HOME IMPROVEMENT CENTRAL 247-8229

MARBLE INNOVATIONS
Natural Stone Products

▲ Natural Stone Flooring ▲ Over 40,000 sf in Stock
▲ Quality Custom Fabrication for Your Home
▲ Factory Direct Import Prices
▲ Marble Tile as low as $3.95/sf

591-1327
1141-E Waimanu Street • Honolulu, Hawaii 96814

You've Waited Long Enough



FREE SPA
with Pool Purchase
15x30 375 SQ. FT.
80' PERIMTER

$25,995

Swim year round in your heated Pool & Spa!

Call for Details.

CUSTOM POOLS
"Details Are Our Specialty"

734-7400 Honolulu

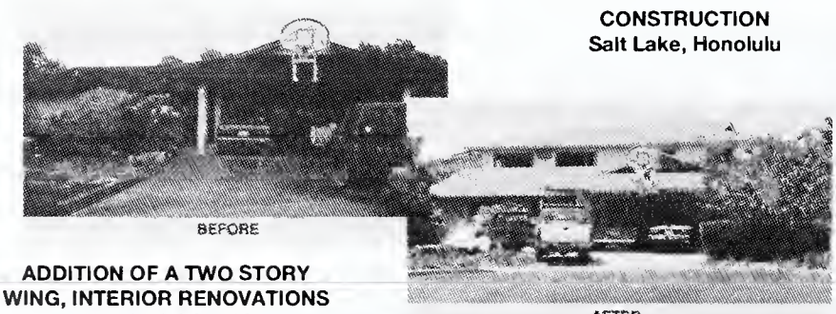
Expires Nov. 1, 1992
Lic C14072

625-0700 Leeward

ROYAL PALM CONSTRUCTION and LANDSCAPING INC.

- Construction
- Drafting & Design Services
- Landscaping
- Maintenance Services
- Nursery & Landscaping Materials

CONSTRUCTION
Salt Lake, Honolulu



BEFORE

AFTER

ADDITION OF A TWO STORY WING, INTERIOR RENOVATIONS AND REROOFING

Lic # BC-14300

Tel 676-6987

94-148 Leowaena
Units H, I, J
Waipahu, Hawaii 96797

Fax 677-0653

Apartment wins top awards

The Alan Beall residence recently won top honors in the Building Industry Association of Hawaii's Seventh Annual Renaissance Awards, a statewide competition recognizing excellence in design and construction of residential and commercial remodeling projects.

The residence was honored in the major residential category for projects more than $250,000.

Remodeling the Beall apartment was a challenge. The project's purpose was to renovate an existing two-bedroom apartment into a new bachelor's apartment. The apartment was 25 years old and in the original style and needed general refurbishing as well as conversion to address the current needs of the owner.

Renovating the apartment required an understanding of the client's needs. The apartment had been in the client's family for many years. It had been a rental unit for several years, but had been occupied by family members for many years before that. While the whole apartment needed considerable work, it also held many happy memories. Preserving a feeling of familiarity and home, preserving a sense of place, became an important goal for the project.

A larger and more spacious master bedroom was carved out of the existing master bedroom with a little space borrowed from the second bedroom.



The second bedroom was opened up to a rear corridor that was enclosed as part of the project and was converted to a spa and exercise room.

The existing kitchen was completely renovated and equipped with state-of-the-art appliances.

Continued on page B-9

Specific needs are graciously provided for, while no space is wasted. The client is a collector of antique toys and memorabilia. Niches and shelves were carved out of walls and corners to provide display and storage for them. No space was too small to serve a useful purpose.



One of the most enjoyed areas of the renovated apartment is the Hikie'e, a traditional Hawaiian double daybed. A small lanai in the corner of the living area was filled with a raised platform and surrounded with a ledge wide enough to hold a TV, books and magazines. An oversized mattress and pillows makes this a place for reading, lounging, watching TV, enjoying the view and relaxing. It also provides delightful and unique accommodations for overnight guests.

In the new apartment, the only existing elements that had to be recognized were the location of plumbing connections and electrical facilities.

To locate a guest powder room close to the living area, the floor was raised to allow access to existing plumbing connections.

A coffer in the entry was carved out of the existing ceiling to give the client room for an 18th-century French armoire that was a family heirloom.

The final product is a collection of decisions and actions that fulfill the owner's requirements in this regard, but more than that, the project started with a faded apartment, memories and a personal vision and ended with a private and personal home for a busy executive in a busy city.

The total cost of the Beall remodel, which involved extensive structural work and the addition of a spa and exercise room was $265,000.

Project architect was Sutton Candia Partners, interior designer was Cleve & Levin and the contractor was Lindeman Construction Inc.

AN EMPTY WALL?

Let's decorate it with beautiful art at an affordable price!



With rich culture background and experiences working with large corporations, small businesses nd individuals, Li can offer you professional assistance in choosing the right art for your needs.

In the fine art arena, nobody knows how to turn your dream into reality like Double-Eye Hawaii. Not only are we the best in getting the art you desire, but also in working with you to get the most within your budget.

DOUBLE-EYE HAWAII, INC.

Fine Art Leasing and Rental

Paintings • Graphics • Sculptures by Local • National • International Acclaimed Artists

Please call Li for a complimentary consultation: **808-599-5742 • 808-599-8804**

500 Ala Moana Blvd., Seven Waterfront Plaza, Suite 220, Honolulu, HI 96813-4918 • At Restaurant Row

MORE THAN JUST SECURITY...

When you decide to make an investment in improvements that enhance and add to the value of your home - add to its security, comfort and convenience with the installation of top quality electronic systems

- **Security Systems**
- **Intercoms**
- **Access Control**
- **Smoke & Fire Detection**
- **"Smart House"**
- **Closed Circuit TV**
- **Communication Systems**
- **Video Distribution**
- **Sound Systems**
- **Home Automation**

For consultation and further details, call today.

486-5111

Ricky Kurihara Electronics

Contractor's License #16179

Quality You Can Trust

Making the place look like a pig sty

Oinks Restaurant in Ward Centre has been open only four months and is already an award-winner, earning an award of merit in the commercial renovation category of the Building Industry Association of Hawaii's Seventh Annual Renaissance Awards.

The challenge of this project was to convert a former bank branch office into a contemporary restaurant specializing in ribs.

The existing 4,500 square feet of interior space was entirely renovated and 1,700 square feet of drive-through and walkways was converted into outdoor seating. To keep general construction costs to a minimum, the design worked within existing structural and architectural conditions.



At Oinks, the menu is very honest and straightforward. However, the design is funky and colorful with a sprinkle of whimsy throughout.

For example, a fun detail is the bar top, made out of raw, polished concrete. By using plain and familiar material in an unexpected way, ordinary concrete is transformed into something new.

Adding to the country flavor, cowhide-wrapped panels are applied to the bar, which is lit with a halogen strip light. Polished chrome hooks are mounted every 12 inches to accommodate purses and bags around the bar.

An industrial foot-operated hand sink is located in the main dining room for patrons to wash the sauce off their hands.

Finally, the entire ceiling became a canvas for a custom sky mural with pigs flying through the clouds by local artists Peggy and Eric Chun.

To create sparkle, personality and drama, 15 different types of low-voltage and incandescent fixtures on dimmers were used.

Narrow spot lamps were used to create tight pools of light and to highlight pig artifacts while strings of lights with pigs, trout, cows and other animals offer an abundance of fun and imagination to the patio at night.

Architect for the project was Philip K. White Associates; the designer was Byron Wong, Wong Design Group; and the contractor was S. Iwane Inc.

SOLID VINYL MEANS A SOLID ADVANTAGE.





Park bench or picnic table, siding, soffits, gutters, windows... whatever your needs vinyl products can ease maintenance, increase values and improve looks at far less cost than you might think. Call the Second Generation Kamaaina company and find out just how easy improving your quality of life in the Islands can be...

HVS

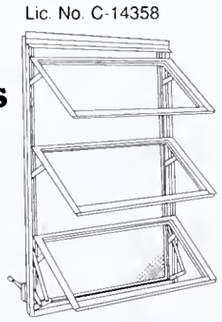
HAWAII • VINYL • SUPPLY

98-723 Kuahao Place • Pearl City, Hawaii 96782
(808) 488-9998 • FAX (808) 486-1009

Lic. No. C-14358

CCI Custom Contractors Inc.

"The Awning Window People™"



CUSTOM AWNING WINDOWS

50,000 sizes available • Choice of frame colors and glass Options • Cam-lock security • 100% ventilation • 100's in stock!

Showroom/Warehouse
99-840 Iwaiwa Steet
Aiea, Hawaii 96701

CALL:483-0100
FAX: 483-0109

KMC takes the 'ouch' out of children's care with color

The new Pediatric Intensive Care unit at Kapiolani Medical Center is twice the size of the former facility. The new unit is efficient, psychologically comfortable and reassuring to the children and their parents.

"Providing interior design services for Kapiolani Medical Center's new Pediatric Intensive Care Unit was one of the most difficult design problems I have ever encountered," said Janet Daniel of Daniel Design Ltd.

Patients and parents are scared. The medical staff sees the worst. The Pediatric Intensive Care Unit treats lung problems, brain injuries, motor



vehicle accidents, near-drownings, burns and falls.

The unit is filled with monitoring and respiratory equipment. It was imperative that all materials selected be practical, finishes be durable and materials portray a feeling of softness, cheerfulness and comfort — color selection was the key to the design concept.

For many years it has been accepted throughout the professional world that color plays an extremely important role both in a child's conscious and sub-conscious worlds.

Kapiolani's PICU represents the most advanced facility in critical care for children. Architects Hawaii Ltd. designed an open-unit concept. The unit was designed in such a way that the nurses and physicians can easily see and reach the children.

Daniel Design's goal was to create a nurturing atmosphere in a highly technical and specialized medical unit. The interior design concept had to be finished appropriately for male and female patients and their parents. The children's ages ranged from very young to teen-agers.

The essence of Hawaii is introduced through colors of the rainbow and textures of the beach. Finishes include a shell motif wallcovering, a collection of fish artwork, and a relaxing aquarium in the family lounge.

Rainbows of color were used throughout the interiors. Colors of cubicle curtains, window covering, wallcovering, counters and floors create a subtle mood. The finished project does not feel like an intensive-care unit. The psychological impact is relaxing and comforting to the parents and critically ill children.

The interior designer was Janet Daniel, Daniel Design Ltd., and the architect was Architects Hawaii Ltd.

Immerse Yourself in Luxury



Exclusive Whirlpool Baths, Showers, Faucets, Accessories

fiddler's

1020 Auahi Street, Honolulu (808) 522-0235

CORIAN

TOPS IN COUNTERTOPS, KITCHENS, BATHS
SINKS & SHOWERWALLS...STYLED BY RBI.

RESIDENTIAL BUILDERS, INC • 842-0040

Updating old Hawaii with charm and elegance

By Gloria Garvey

Philip K. White & Associates was responsible for remodeling and updating a 40-year-old Kahala home for a family that had lived in the home for 20 years.

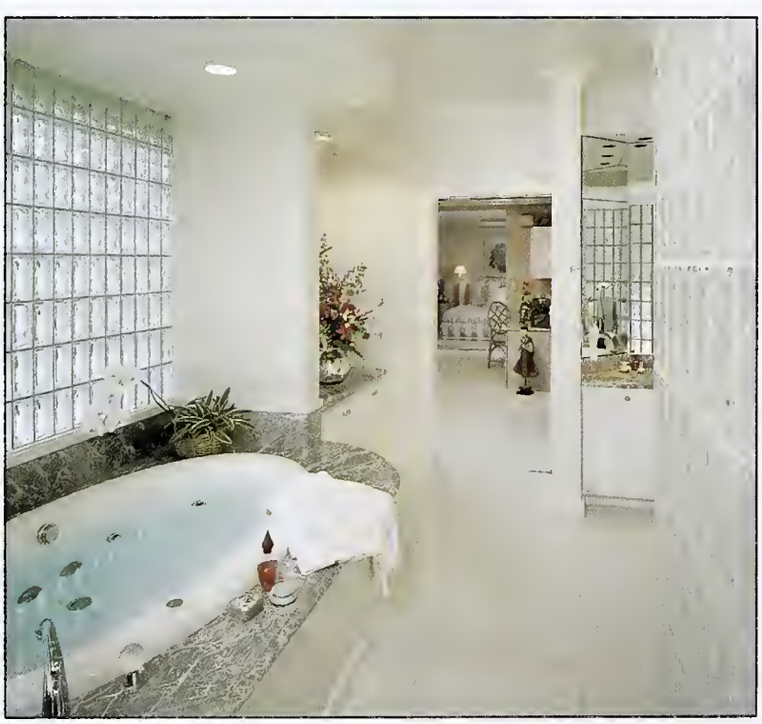
The owners, who had moved into the home when they married, found that changes in their lives and lifestyle over the years made a different environment desirable.

Still, their home was well located — on a desirable corner location in Kahala — and they had come to appreciate the benefits of living in the area.

In addition to wanting to reconfigure and redesign their living environment, the owners felt that completely redoing this old Kahala house made good economic sense. During their residence, the neighborhood had changed dramatically, and their home — even though it had undergone various additions and redecoration over the years — no longer kept up with the prevailing "standard." The owners of Kahala Courtyards are longtime kamaainas who wished to protect their investment, and to preserve their lovely Island-style home at the same time.

This, then, is the paradox which was presented to the architect and designer. They were intrigued and delighted with the opportunity to work in partnership with an owner from one of Honolulu's grandest neighborhoods. Thus, it was easy to think of themselves as a design team.

In addition to "keeping their house Hawaiian," the house needed to accommodate their young child, so the swimming pool (put in as part of an earlier redesign) was eliminated for safety reasons and an enclosed outdoor play/recreation area was created. Although the owner sought to create an informal and inviting setting, the environment had to be flexible enough to accommodate their professional lives — which included periodic formal entertaining. The design team agreed that it was necessary to demolish all but the kitchen, the dining room window wall and the guest room.



The new plan allows for a more natural flow and ease of function, and takes maximum advantage of the balmy Hawaiian trade winds and the beautiful greenery surrounding the house. Even the entrance of the home was moved from one street to the other, relocating it on the quieter street. The opportunity to create a more formal entrance was taken, and the use of planting and gentle lighting have created a dramatic presence and effect.

The sloped cedar shake roof recalls old Kahala, and helps to create the integration of the old roof and rooms with the new, fresher look.

The lush, tropical landscaping and outdoor living spaces give this home the elegant informality for which old Kahala homes were known.

French doors bordering the various courtyards open wide, providing practically invisible barriers between the understated interior and the outdoors, allowing the owners to take full advantage of the beautiful weather that blesses Kahala year round.

While one courtyard is formal and well suited to entertaining guests, another takes a family-oriented approach, featuring a barbecue and recreation area. The first is visible from the entrance, living room and master bedroom, and the latter is visible from the kitchen, dining room and guest room.

The master bedroom has been transformed and is now a master suite, including a bedroom, sitting room with private office, two full baths, and two full-size walk-in closets. The master bath suite features glass block in gently curved walls for both his and her showers. As in the bedrooms and elsewhere in the house, the lighting in the baths is designed to accommodate various moods, and enhances the ambience of open space.

The use of both indirect and direct lighting in the new plan also helps highlight added architectural elements and to create shadow for accenting the soft, understated hues of the materials used for the walls and flooring in the home.

For example, evenly distributed indirect core lighting along the perimeter of the vaulted ceilings helps to enhance the volume of space in both the living and dining rooms (see cover photo). Art niches were created in both rooms, using specific down lighting for the purpose of highlighting the owners' art objects.

Like the architecture, the interior color scheme and design includes subtle changes and dramatic accents. From the crisp

Continued on page B-13



Entrance leading to one of the courtyards

white of the kitchen and child's bedroom, to the pale peach used in the living room and dining room to the dark green walls of the den, this house offers a wide variety of moods.

Neutral floor materials of marbles, ceramic tile and carpeting work with pure white enamel trim paint to tie all of the rooms together with each other and the outdoors. Wall treatments include patterned wallpaper for the powder room and guest bath, subtly textured paper in the den and master suite, as well as seven different but complementary paint colors for walls and ceilings.

Redesigning and renovating this Kaha-



The den features dark green walls with white trim

la home was a labor of love for the design team. The finished project offers a modern-day renaissance of their mutually beloved Hawaiian approach to life and living.

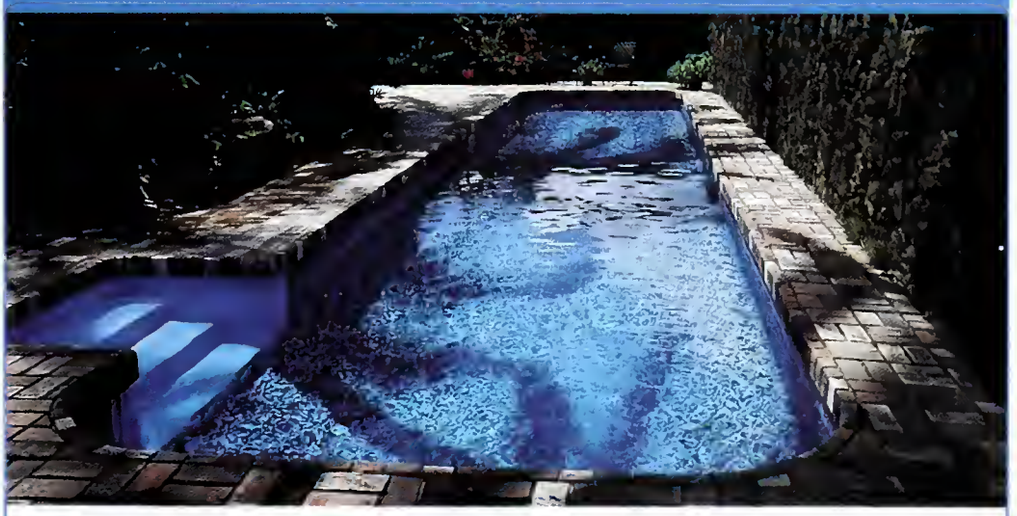
The home is the perfect showcase for the Asian art and European antique furniture that the family has collected over the years — and the combination of the two in this beautiful environment is truly typical of a Hawaii of bygone days.

Marilyn Moss & Associates, Inc.
SMG Design & Construction



General Contracting / Remodeling • Additions
Interior Design • Architectural Drafting
(808) 734-8808
"We do it all"

HAWAII'S NUMBER ONE POOL COMPANY!



WONDERPOOL

Why get an old-fashioned pool when you can have a Wonderpool?

14' x 28' Inground Pool INSTALLED!

reg. $18,200 • Now • $13,900 • SAVE $4,300!

PHONE 676-8126

Contr. Lic. #C-15406 CALL TODAY FOR A FREE ESTIMATE Restrictions apply Offer Expires 11/15/92



COOL & COMFORTABLE

...with the best ventilating skylight available in the islands. Come in and see the residential product that helped us become the #1 supplier & installer of passive light and ventilation systems in America!

VENTARAMA®

Con. Lic. No. BC-11445

SKYLIGHTS OF HAWAII

1824 Dillingham Blvd. • Honolulu, 96819
Call (808) 847-5500 • FAX (808) 847-2244

Hiring a Contractor

If you are seriously considering a home remodeling job or thinking of installing a swimming pool, then you will probably hire a contractor to do the work.

As licensed contractors have met experience and examination requirements, and are required to maintain workers' compensation insurance and liability insurance, it is necessary to insist that the contractor you hire be licensed. With limited exceptions, all contractors are requied to be licensed. Unlicensed contracting acitvity is illegal in Hawaii and is prosecuted by the Regulated Industries Complaints Office (RICO) of the Department of Commerce and Consumer Affairs.

Complaints against licensed contractors also are prosecuted by RICO. These complaints may result in sanctions imposed by the Contractors License Board, which is placed under the Department of Commerce and Consumer Affairs for adminstrative purposes.

In the planning of work, during the progress of work, and after the completion of work on your home — from the smallest paint job to a major remodeling or the installation of a pool — use the following checklist for protection:

❑ Get at least three written estimates for the job.

❑ Verify the licenses of the contractors and any subcontractors by calling the Professional & Vocational Licensing Division.

❑ Check with the Regulated Industries Complaints Office for any prior complaints about the contractor.

❑ Ask the contractor for references.

❑ Request a list of subcontractors if any are used.

❑ Purchase performance, materials and completion bonds through the contractor.

❑ Obtain the appropriate building permits.

❑ Draw up a written contract.

❑ Read the entire contract and understand all of its terms and conditions.

❑ See and understand any plans and blueprints before approving them.

❑ Periodically check on the progress of the work.

JAMES KELLAR
AND ASSOCIATES

Custom
Design-Build
Contracting

LICENSE NO. ABC-14615

6244 Milolii Place
Honolulu, Hawaii
96825

Fax 808.396.4102

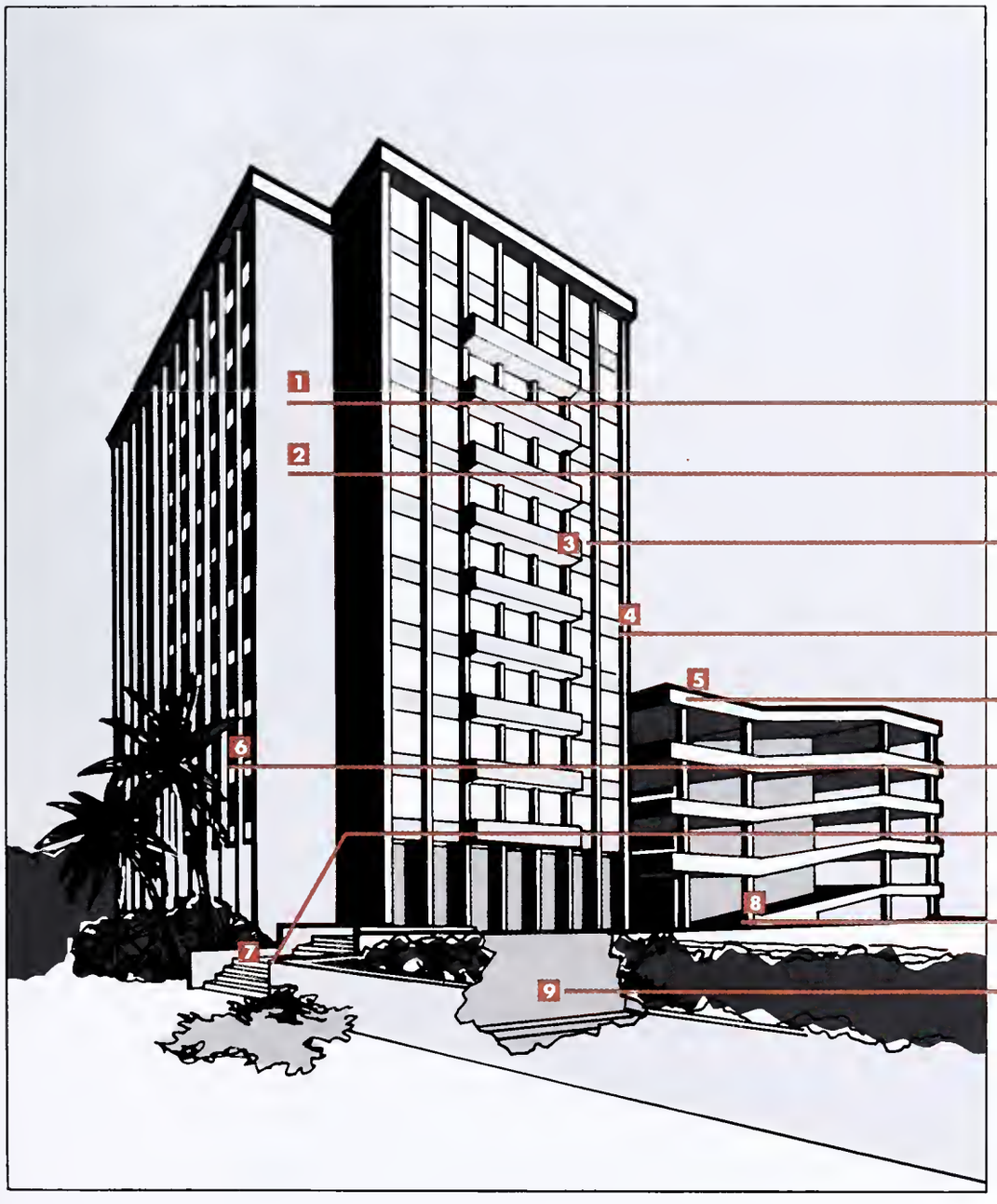
Phone 808.396.6601

DANIEL DESIGN LTD

1001 Bishop Street
Pacific Tower, Suite 303
Honolulu, HI 96813
Phone: 808-538-7788

Complete interior design services for medical facilities, hospitality, retail stores. and corporate offices.

THE RESTORATION SPECIALISTS.



When it comes to restorotion, cootings for wolls or porking decks ond more, depend on us to provide the service you need. On Oohu, coll 832-1155 or fox 832-1151.

FIRESTOPPING
Hevi-Duty/Nelsan Firestap Praducts

TEXTURED COATINGS
Tharalastic and Tharawall

PATCHING MATERIALS
Tharite, structural repair patching ta vertical and averhead surfaces.

CLEAR SEALER
Hydraza

BLOCK LEVELER
Pawerfix Base

EPOXY ADHESIVES
Unitex Pra-Paxy

MULTIPURPOSE HORIZONTAL PATCH REAIR
Pawertap Patch

DECK COATINGS
GACO, urethane elastameric systems

BELOW GRADE WATERPROOFING
LM-60 and Tharaseal

These ore just o few of the mony products ovoiloble from Bonded Moteriols Company. Pleose osk obout our complete product line.

BONDED™

BONDED MATERIALS COMPANY
A Standard of Excellence since 1955.

OAHU 251 Puuhole Road, Honolulu 96819 (808) 832-1155 FAX 832-1151
HAWAII 73-4776 Kanaloni Street, Bldg. B, Kailua-Kono 96740 (808) 326-2477 FAX 329-5181
MAUI 320 Haahano Street, Bay 13, Kahului 96732 (808) 871-7395 FAX 877-4252
GUAM P.O. Box 7086, Tamuning, Guam 96917 (671) 646-7121 FAX 649-9338
SAIPAN Coller Box PPP-263, Soipon, MP 96950 (670) 322-3477 FAX 322-0305

HEADQUARTERS: OAHU 91-400 Komohono Street, Ewa Beoch, Howoii 96707 (808) 673-2000 FAX 673-2020

©1992 Bonded Materials Company

A Touch of Brass



Alno • Artistic Brass • Baldwin • Green Street • Details • Hewi • International Wood Products • Jado • Keuco
St. Thomas • Schlage • Valli & Columbo • Epic • Alape • Period Brass • Gordon's Miracle Shine • Green Street Details

Visit our new 3,000 sq. ft. showroom, featuring the finest in decorative hardware, bathroom fixtures and accessories, beautiful handcrafted oak doors and more.

1668 S. King Street
Honolulu, Hawaii 96826

Telephone: (808) 946-0290
Fax: (808) 946-5005

Div. of Island Pacific Distributors, Inc.

DECLARATION:

Instructions to patients

A. Here is a combined Living Will and Durable Power of Attorney for Health Care. You do not have to hire a lawyer to have a valid one. The enclosed version is valid if you execute it properly. It is designed to express YOUR wishes about medical care in case you ever become so disabled that you cannot express yourself. If the form does not accurately express your wishes, you are free to change it. (But see paragraph D, below, before making any changes.)

B. Your wishes may not be honored unless you and two witnesses (they cannot be relatives) all sign together at the same time, in front of a notary. However, if you cannot get a notary or friends to help you, you should still go ahead and sign the Living Will if it says what you want it to say. Having it in writing is better than just making verbal statements to people. I also recommend you speak with your family and your doctor about these issues and give them a copy of your Declaration so they know how you feel.

C. In paragraphs 7 and 8 of the Declaration, you can appoint someone as a decision-maker for you (if you want to). This person is often referred to as a "proxy." However, do not worry—they cannot override or veto your own wishes. Even if you appoint a proxy, the doctor must first consult your own instructions (as set out in your Declaration). If your instructions answer the problem that exists, the proxy has no vote. The proxy's only job is to step in and make a decision for you in case your living will does not answer all the questions regarding your situation. If you do appoint someone, you should talk with them about it in advance so they are not surprised if they are ever called on to make such important decisions for you. **Many people ask me whether the person(s) they appoint as their proxy can be a spouse, child, relative, or friend. The answer is "Yes."** If you do not want to appoint anyone, just cross out or put "nobody" at paragraphs 7-8.

D. Changes. Paragraphs 6, 7, and 8 of the form deal with special issues under the law, particularly tube feeding. Hawaii law requires that this two-part check-off in Paragraph 6 be in your Declaration, and special language in paragraphs 7 and 8 may also be required. So, if these paragraphs express your wishes, you can go ahead and follow the directions and sign it as is. However, if paragraphs 6 or 7 or 8 do not accurately state your wishes and you want to re-word them, please consult with a lawyer beforehand. It is a tricky area under the new Hawaii laws, and you may make a mistake without expert advice. Also, ANY hand-written changes to the form must be initialed and dated by you and the notary to be valid.

E. **OLD** LIVING WILLS/**OLD** DURABLE POWER OF ATTORNEY FOR HEALTH. **Because the law in Hawaii changed in 1991 (for Living Wills), and in 1992 (for Durable Power of Attorney for Health Care), it is probably important to do a new one. If you have an old one, it could limit you more than you want. If you have any questions about this, we will be happy to answer them free of charge.**

LIVING WILL AND DURABLE POWER OF ATTORNEY FOR HEALTH CARE

1. I, _____ make this Declaration on _____, 199___. I am of sound mind. I willfully and voluntarily make this Declaration as the instructions to be followed if I become unable to participate in decisions about my care. I fully understand and intend that the instructions in this Declaration will result in my death under certain circumstances.
2. These instructions express my deeply held belief that I have a right to refuse treatment. I expect my family, doctors, and everyone concerned with my care to regard themselves as legally and morally bound to act in accord with this Declaration, and in so doing to be free of any civil or criminal liability.
3. If any part of this Declaration is declared legally void, then I ask that the rest of this Declaration be honored.
4. The quality of my life is important to me. I do not want to be kept alive if I have a terminal condition, or if I lose the ability to communicate concerning medical treatment decisions, or if I have any other incurable or irreversible mental or physical condition that seriously or totally disables me with no reasonable expectation of recovery. This includes brain disease or brain damage such that I am unable to recognize people and to speak understandably or to communicate feelings other than pain or suffering or delusions. My condition does not have to be terminal in order for these instructions to apply. These instructions apply even if I could be kept alive indefinitely by medical treatment.
5. If I have any condition described in paragraph 4, above, I direct that all procedures that might prolong my life be withheld or withdrawn, and that I be permitted to die with only the performance of any medical procedure necessary to provide me with comfort or to alleviate unnecessary pain. Specifically, but without limiting myself, I do not want surgery, medication (except pain relief), cardiopulmonary resuscitation, antibiotics, kidney dialysis, blood transfusions, radiation or chemotherapy, or a mechanical respirator.
6. I also have considered whether I want artificial (including tube) feeding and fluids to be provided, and my decisions are shown by putting my mark or initials in the space provided:

   _____ I do NOT want my life prolonged by tube or other artificial feeding and fluids if my condition is as stated above in paragraph 4.

   _____ I DO want my life prolonged by tube or other artificial feeding and fluids even if my condition is as stated above in paragraph 4.

Signature of Person Making This Declaration_____**Date**_____

Page 1 of 2

(If neither provision is chosen, or if both are chosen, it shall be presumed that I DO want tube or other artificial feeding or fluids to be given to prolong my life.)

(Note: After you make your selection above, you should cross out/draw lines through the entire option you are NOT choosing. This is to prevent any confusion about what you want.)

7. If for any reason my instructions as stated in this Declaration are not specific enough, or if for any other reason my instructions do not resolve or answer the issues raised by my incapacity, then I designate the following person to act in my behalf and make whatever decision about my care that I would be able to make if I were able, including the power to make decisions that will result in my death. This specifically includes the authority to refuse, on my behalf, surgery, resuscitation, or life-sustaining medical treatment, including nutrition and hydration.
   Name: _____
   Address: _____
   _____

8. If the person I named in paragraph 7 is unable or unwilling to make such decisions for me, I authorize the following person to do so, to the same extent as stated above in paragraph 7.
   Name: _____
   Address: _____
   _____

9. If any physician or health-care facility refuses to comply with this Declaration, then I want my care transferred to another physician or facility who will honor my wishes. I also authorize a court-appointed guardian, or any person named in paragraph(s) 7 and 8, above, in his or her discretion, to file suit to force compliance with this Declaration, and for damages if warranted, and to otherwise force compliance with this Declaration.
10. My instructions as stated in this Declaration shall be controlling in all circumstances, even if they conflict with the desires of my relatives, or the desires of any person(s) I have named in paragraphs 7 and/or 8, above, or hospital or health care policies, or the principles of those providing my care.

Signature of Person Making This Declaration_____**Date**_____

Statement of Two Adult Witnesses: _____, (the person signing this Declaration) is personally known to me (or has provided me with reasonable evidence of identification), and is, I believe, of sound mind and is making this Declaration freely without threat or duress. I am at least 18 years of age.
(NOTE: 18 years of age is the minimum legal age allowed for a witness; however, it is better if the witnesses are at least 21 years old.) I am not related to the person signing this living will by blood, marriage, or adoption. I am not currently the attending physician, an employee of the attending physician, or an employee of the health care facility in which the person signing this living will is a patient.

_____	_____
Type/Print Name of Witness	Type/Print Name of Witness
_____	_____
Signature of Witness	Signature of Witness
_____	_____
Street Address of Witness	Street Address of Witness
_____	_____
City/State of Witness	City/State of Witness

NOTARY: STATE OF HAWAII, CITY AND COUNTY OF_____**)SS**

The preceding pages of this Living Will/Durable Power of Attorney for Health Care Declaration were sworn to, subscribed, and acknowledged before me by the Declarant, _____ and subscribed and sworn to before me by _____ and _____, witnesses, on this _____ day of _____ 199___.

Notary Public, State of Hawaii_____**My commission expires:**_____

Page 2 of 2

Oahu:

Elder Law Project
Phone: 956-6542
Univ. of Hawaii (Law School)
2515 Dole Street
Honolulu, HI 96822

Hawaii Medical Association
Phone: 536-7702
1360 S. Beretania Street
Honolulu, HI 96814

Elderly Affairs Division
Phone: 523-4361
City and Country of Honolulu
650 S. King Street, 6th Floor
Honolulu, HI 96813

Legal Aid Society of Hawaii
Phone: 536-4302
1108 Nuuanu Avenue
Honolulu, HI 96817

Hawaii:

Legal Aid Society of Hawaii
Phone: 961-2851
305 Wailuku Drive
Hilo, HI 96720

Kauai:

Seniors Law Program
Phone: 246-0573
4268-K Rice Street
Lihue, HI 96766

Maui:

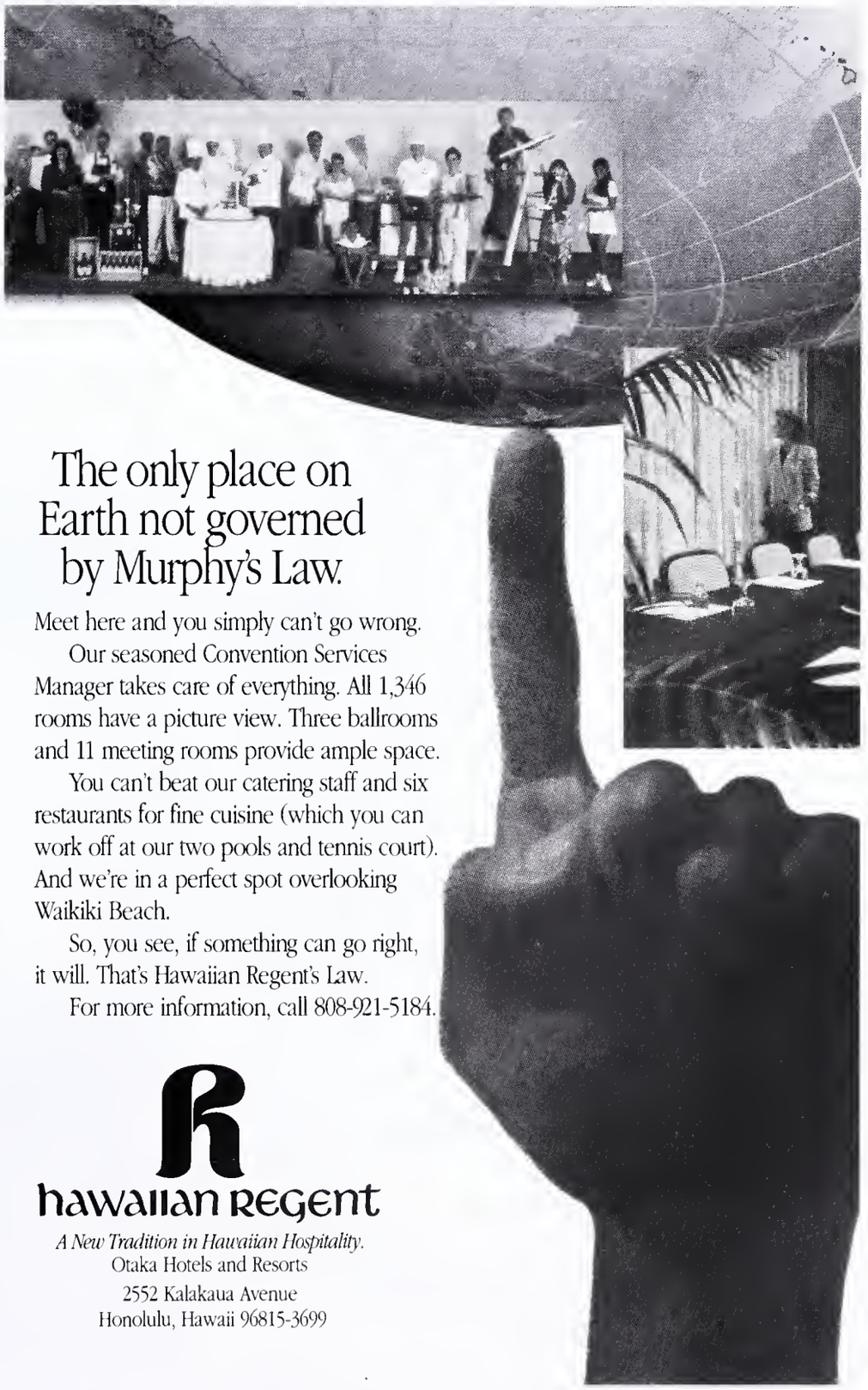
Legal Aid Society of Hawaii
Phone: 244-3731
2287 Main Street
Wailuku, HI 96793

Other:

Executive Office on Aging
Phone: 586-0100
Office of the Governor
335 Merchant Street,
Room 241
Honolulu, HI 96813
Provides State coordination
of legal services to older adults.

Hawaii Lawyers Care
Phone: 521-7740
1136 Union Mall, PH 2
Honolulu, HI 96813
Serves low income persons
by trying to match them
with volunteer lawyers. ■

COMMUNITY RESOURCES ADVANCE DIRECTIVES





Hawaii no ka oi* in terms of health care

Richard V Stenson**

The author uses an original survey of Hawaii residents and published international survey data to demonstrate that Hawaii consumers are far more satisfied than their U.S. mainland, Canadian, and British counterparts with their health care system and find it one of the least of their problems of living in paradise.

Introduction

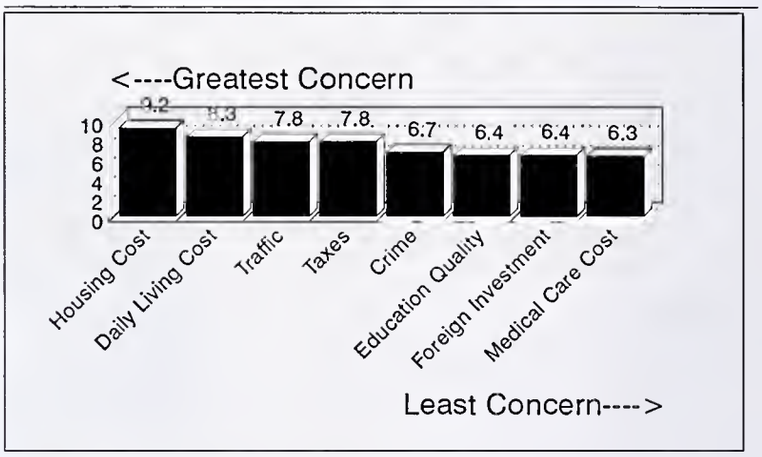
There is a great deal in the press about the cost, accessibility, and even the structure of our health care system in these waning days of an election year. To be sure, the growing problems of the medically indigent as well as the escalating health care costs must continue to be addressed in many of the other 49 states. Nevertheless, those working in Hawaii's health care sector agree that the seriousness of the problem with the medical care system here is being overplayed by politicians (and would-be politicians). It doesn't require "rocket" science to see that health care is an easy target for concern by the general public, given the significant percent of the economy required to provide high quality, modern medical care as compared with the relatively few votes that may be cast by medical professionals. As we shall see below, the cost and availability of medical care are ranked as lesser problems among other issues of concern by the general population in Hawaii. We explored what consumers really think about the health care system in our state, and how they rank it versus other problems.

Methods

At the direction of the author, the Honolulu-based market research firm, OmniTrak, completed a random telephone survey of 508 Oahu households in November 1991. The survey included questions on Hawaii health care services, their cost, accessibility, and the relative impact of these versus other perceived issues of public concern. Households included in the survey were regular, non-military residents; those households with individuals employed in the health care field were excluded. The survey findings have a +/- 4% error rate at a 95% confidence level.

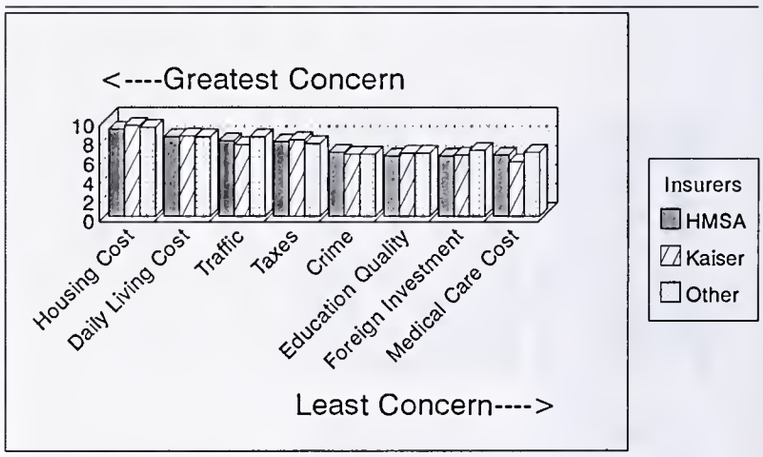
Respondents also were asked whether they felt our health care system "needed fundamental changes" or "works pretty well and needs only minor changes." The responses to this question are compared with the findings of a similar 1988 poll conducted by the Louis Harris organization in the U.S., Canada, and Great Britain. The results of this Hawaii survey may be surprising to the general

Graph 1. Problems Hawaii's People Face
(Overall Rankings)



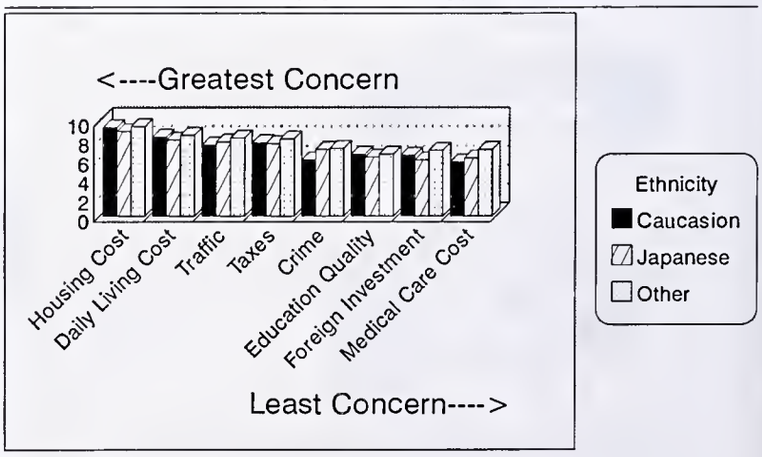
OmniTrak Poll; R.V. Stenson, November 1991

Graph 2. Problems Hawaii's People Face
(By Health Insurance Carrier)



OmniTrak Poll; R.V. Stenson, November 1991

Graph 3. Problems Hawaii's People Face
(By Ethnicity)



OmniTrak Poll; R.V. Stenson, November 1991

* "Is the best"

**Richard V Stenson, MHA, MBA, FACHE, FACMGA
(formerly) Executive Vice President and Administrator
Straub Clinic & Hospital
888 South King St.
Honolulu, Hawaii 96813;
currently President and CEO
Tuality HealthCare
335 SE Eighth Avenue
Hillsboro, Oregon 97123

Submitted for publication 17 August 1992

public and policy-makers, but are much less so to those involved in the delivery of health services here. The survey indicates that Hawaii residents think better of their health care system by a margin of nearly 3 to 1 compared to the U.S. as a whole. Hawaii ratings are also significantly more positive than that of Canadians who rated their system.

Household survey question number one: *"On a scale of 1 to 10, with 10 being the greatest problem people face in living in Hawaii and 1 being the least serious problem, how would you rate the following choices: Quality of public school education; foreign investment; cost of housing; taxes; cost of daily living; crime; cost and availability of medical care; traffic?"*

Respondents also were asked if there were any other major problems with living in Hawaii. Although other issues were raised on this open-ended section of the survey, the additional concerns did not produce any items of statistical significance and those responses are not included in this article.

Results in Hawaii

Graphs 1 through 6 depict the results of the first question broken out for different variables of possible interest.

Graph 1 depicts the overall response to the first question. It indicates that the cost of housing is by far the greatest perceived problem, followed closely by the general cost of living, traffic, and taxes, as major problems of living in Hawaii. The cost and availability of medical care is generally the least of the problems facing residents.

Graph 2 shows the same comparison broken down by the respondent's insurance carrier. The results are essentially the same as Graph 1, but it should be noted that those with a Kaiser Permanente health plan are least concerned about health care costs, followed by HMSA plan members (Hawaii Medical Service Association, the Hawaii Blue Shield and Blue Cross affiliate), and those with other types of insurance having the greatest concern in this category. HMSA and Kaiser provide over two-thirds of all health insurance coverage in Hawaii and, therefore, are identified separately here. The "other" category is comprised of Medicare, Medicaid, CHAMPUS, Hawaii Dental Service (medical plan), and smaller insurance groups.

Graph 3 breaks out the responses by the ethnicity of the respondents. Residents who are Caucasian or Japanese comprise approximately two-thirds of the population. The "other" category is everyone else: native Hawaiian, Chinese, Filipino, Korean, other Polynesian and Asian groups, etc. The survey found that Caucasians and Japanese had less concern about many issues, including the cost and availability of health care (both were below the 6.3 overall rating on Graph 1). However, other ethnic groups scored health care costs slightly higher than the total on Graph 1.

Graph 4 breaks out responses by household income. Not surprisingly, those making $50,000 or more a year are slightly less concerned about most issues. Compared to those households with lower incomes, this group is most notably less concerned with crime, quality of education, foreign investment, and the cost and availability of health care. Households in both the under $35,000 and the $35,000 to $49,000 a year groups appear to have responded about the same on most items.

(Continued on page 276) ➤

PENSION HEADACHES?



GET THE CURE...

Are pension details giving you a headache? Call HICKS and get the cure. As third Party administrators of qualified retirement plans, HICKS offers complete support to accountants with consulting, documentation and administration for their clients.

Clients of HICKS enjoy complete discretion of trust assets while never having to worry about compliance issues or administration duties. With HICKS, all required Trust Accounting, Participant Allocations, Government Reporting (including IRS form 5500) and Plan Amendments are handled. And, with over 21 years of experience behind us, accountants enjoy the comfort of knowing their clients' plans are being handled by the best in the business!

So, if pension headaches are getting you down, call HICKS and get the cure!

*Self Trustee Plans
*Standardized Documents
*Plan Design and Amendment
*Actuarial Services
*In-House Continuing Education
*Training for Accountants
*Profit Sharing
*401(k) Profit Sharing
*Money Purchase Pension
*Target Benefit Pension
*Defined Benefit Pension
*125/Cafeteria Plans

HICKS. PENSION SERVICES

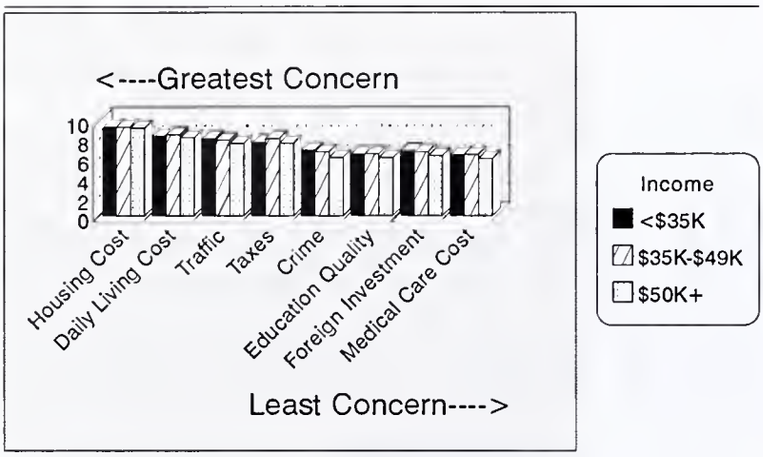
CPE

615 Piikoi Street • Suite 2020 • Honolulu HI 96814 • (808) 523-0144

Graph 5 breaks out responses by gender of respondent. Women appear to be more concerned on all issues. We'll leave analysis of this finding for the social scientists to ponder.

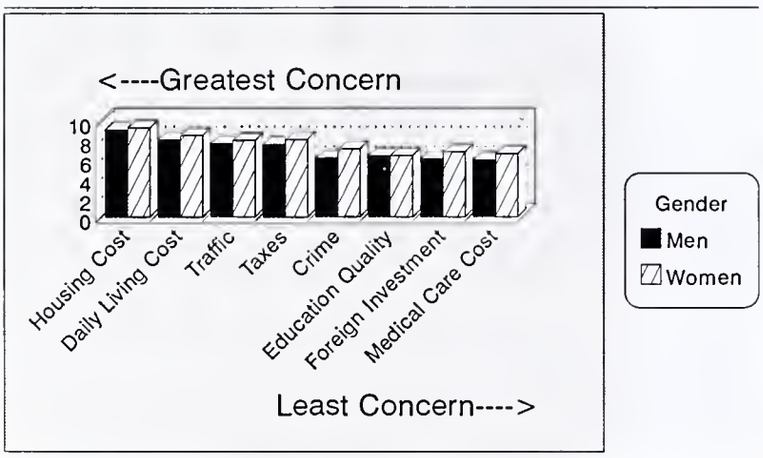
Graph 6 breaks out responses by area of residence. Although the trends are generally the same as in the overall ratings, it is noteworthy that those who live in Waianae indicated a relatively high level of concern on nearly every problem.

Graph 4. Problems Hawaii's People Face
(By Household Income)



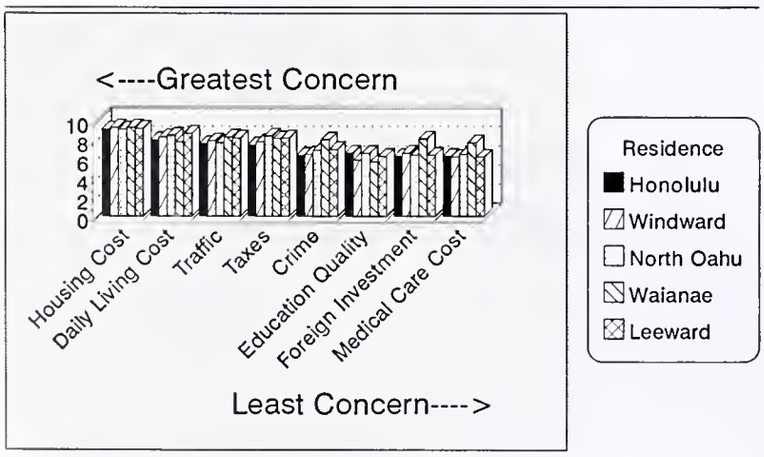
OmniTrak Poll; R.V. Stenson, November 1991

Graph 5. Problems Hawaii's People Face
(By Gender)



OmniTrak Poll; R.V. Stenson, November 1991

Graph 6. Problems Hawaii's People Face
(By Residence)

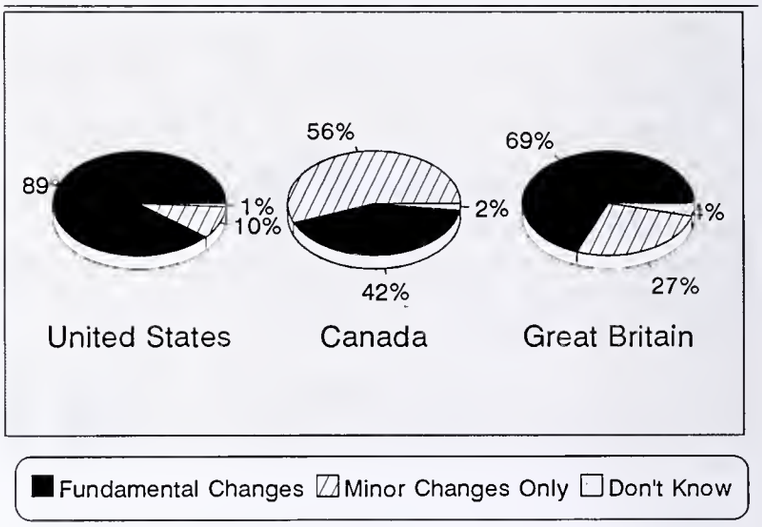


OmniTak Poll; R.V. Stenson, November 1991

A Comparison

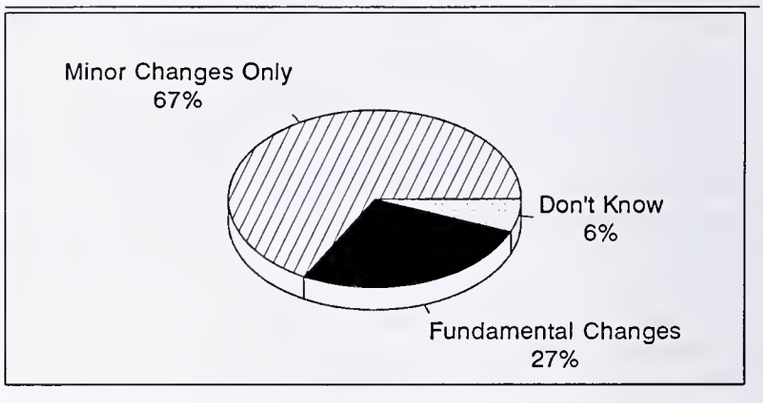
Graphs 7, 8, and 9 deal with responses and comparisons for the second household survey question: *"When you think about how easy or difficult it is in Hawaii to get health care services you or your family need, and how easy or difficult it is to have insurance coverage, which of the following statements would best describe how you feel about Hawaii's health care system: A) it*

Graph 7. Three Nations Rate Their Own Health Systems



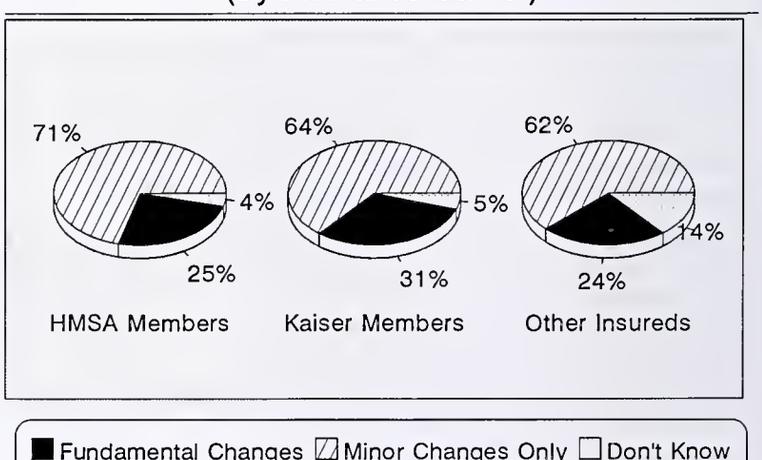
Harris Poll; R.J. Blendon, Health Management Quarterly, First Quarter 1989

Graph 8. Residents Rate Hawaii's Health System
(Overall Response)



OmniTrak Poll; R.V. Stenson, November 1991

Graph 9. Residents Rate Hawaii's Health System
(By Insurance Carrier)



OmniTrak Poll; R.V. Stenson, November 1991

needs fundamental change or complete rebuilding, B) it needs only minor changes, or C) don't know?"

Graph 7. In 1988 the journal *Health Management Quarterly* asked Louis Harris Associates and the Harvard School of Public Health to survey Americans, Canadians, and Britons about whether they thought their health care system needed fundamental changes, minor changes, or weren't sure. Those results, as reproduced in Graph 7, were published by Robert J. Blendon in the first quarter (1989) issue of *HMQ*[1] and have been widely quoted and referenced since then. Graph 7 shows that nearly 90% of Americans are generally fed-up with their health care system as compared to nearly 70% of Britons, while fewer than 50% of Canadians feel that way.

Graph 8 displays the November 1991 OmniTrak survey responses to the same question put to Hawaii residents. Only slightly more than one in four Hawaii residents (27%) feel our health care system needs fundamental change or overhaul. Hawaii's 1974 Prepaid Health Care Act, requiring businesses to provide health insurance to all employees working 20 hours or more a week, has likely been a major factor in this relatively favorable response. Additionally, the author postulates that this positive public sentiment also may have resulted from Hawaii's health care providers accepting their community responsibility to provide medical care for all, regardless of ability to pay.

Graph 9 breaks out the Hawaii responses to the second question, by insurance coverage. The trend is generally the same. However, those with Kaiser Health Care Plan appear to be significantly more in favor of fundamental changes to the health system than HMSA or "other" insureds.

Discussion

We have reported in the January 1992 issue of *Hawaii Medical Journal* that Hawaii's percent of gross product spent on health care is lower than the U.S. average and also lower than that of most countries with purportedly superior, socialized medicine systems[2]. The findings of the current OmniTrak survey and their comparison with those of the 1989 Harris/Harvard international poll can be argued to make a further point that, despite paying less of their gross product for health care (or, perhaps because they do pay less), Hawaii's residents perceive their health care system more positively than do the residents of the mainland U.S., Canada, and Great Britain. And, Hawaii residents feel that access to and cost of their health care system is generally the least of the major problems they face in struggling to live in paradise. Perhaps we would better serve our community by redoubling our public policy efforts at tackling the clearly greater problems of the cost of housing, cost of living, traffic, taxes, crime, and quality of education before tinkering with a health care system that Hawaii residents feel is working pretty well.

REFERENCES

1. Blendon RJ. Three systems: a comparative view. *Health Manage Q.* 1989 1st Quarter;11(1):2-10.
2. Stenson RV. Comparison of health expenditures in the U.S. and Hawaii economies. *Hawaii Medical Journal.* January 1992;51(1):10-14.

■

First, We Listen.



Before we do anything for you, we listen *to* you. Because until we identify your exact needs and desires, we really can't do the job for you the way it needs to be done. To say we work closely with you is a bit of an understatement. But that's okay. We don't mind being quiet. It's our secret to good listening.

Showroom hours 10 to 5. Saturdays 9 to 4. License Number BC-5555.

Karen Nakamura, CGR, and to her right, Audrey Tanaka, ASID

REMODELING SPECIALISTS Hawaii

The General Contractor Who Speaks Interior Design. Call 735-9844. Fax 734-8351.

3160 Waialae Avenue Honolulu, Hawaii 96816 Division of Wallpaper Hawaii, Ltd

YOCON®
YOHIMBINE HCl

Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalmic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon® is indicated as a sympathicolytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.



References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

Rev. 1/85

AVAILABLE AT PHARMACIES NATIONWIDE

PALISADES PHARMACEUTICALS, INC.
219 County Road
Tenafly, New Jersey 07670
(201) 569-8502
1-800-237-9083

CLASSIFIED NOTICES

To place a Classified Notice, MEMBERS, please send typewritten ad to HMA office. Nonmembers, please call Leilani at 521-0021, 4 line min., approx. 5 words per line. Payment must accompany order.

BUSINESS OPPORTUNITY

MEDICAL CLINIC FOR SALE
Internal Medicine Primary Care Practice. Located at the Aiea Medical Bldg. Fully equipped & fully furn. Estab. 15 yrs. 25 patients/day, 3 exam rms., cpnsultation rm., business/billing office, recep. area, complete in-office lab. Office approx. 950 sf. Terms negotiable. Serious inquiries & offers call: 528-2102; 622-7611 or write Medical Clinic, PO Box 2167, Hon., HI 96805.

EMPLOYMENT OPPORTUNITY

ALOHA MEDICAL CONSULTANTS
Positions available 6 MDs: Internists/Ob/Ortho/Occ. Health+; Charge RNs and RPTs. Kathryn Beavin 941-1551.

FP/GP
For Maui resort medical office. Send CV to Dr. Ben Azman, West Maui Healthcare Center, Kaanapali, Hawaii 96761 or phone 1-808-667-9721.

FOR SALE

QBC Blood Analyzer
Automated CBCs utilizing buffy coat analysis of a tiny capillary tube blood sample. State-of-the-art. Printer included. Purchased 5 months ago for $11,300 and rarely used. Transferrable warranty. $8,000 complete. Contact Marika at 831-3000.

TREADMILL UNIT
Adjustable speed and angle treadmill. Functional but old. EKG unit is outdated and not functioning, but may be repairable. $100. Contact Marika at 831-3000.

CLINIC EQUIPMENT SALE
2 med exam tables w/stirrups, 2 Maico audiometers, Titmus vision tester, new Ricoh FAX 280 OL, Ricoh copier FT 4460, 2 treatment tables, phystherapy equip., incl. 2 Chattanooga Co. computerized traction machines, electric Hi-Lo traction table w/Saunders unit for cervical Tx, wall-mount cervical traction unit, 10 pack Chattanooga Co. hydrocollar tank, ultrasound machine, 8 Scandinavian-type wait. room chairs, 4 secr. chairs, 8 and 6-shelf filing cabinets, treadmill, Burdick EK-5A EKG machine. Office equip. and supplies, etc. Also Welch-Allyn wall-mount Oto-Ophthalmoscope set and other equip. Write to: 930 Kaheka St. #1704, Hon., HI 96814 or call 943-8778.

COULTER COUNTER BLOOD DILUTER
Electrolyte machine and other lab equip/supplies. Call 523-5623.

OFFICES

AMBULATORY SURGERY CENTER FOR SALE OR LEASE. Located in a medical office building. Fully equipped and furnished. Terms negotiable. Call 538-6622; or write to: Ambulatory Surgery Center, 1520 Liliha St., Suite 601, Hon., HI 96817.

KUAKINI MEDICAL PLAZA OFFICE Will sublease. Terms negotiable. Ph. 524-5225 or answering service 988-2188.

Maka O Ke Kauka

Russell T Stodd MD

If one hundred businesses decide to do it, it is not illegal.

While the problem may not be an issue in our little island state, the matter of "economic credentialing" is rearing its rapacious prominence in major hospitals. The point is simple: bring money into St. Fictitious, and you get hospital privileges. If you fail to bring enough income into the hospital, your privileges are denied. In Leon County, Florida, a qualified surgeon was denied hospital privileges solely for financial reasons, and the hospital was supported by a trial judge. So, in our out-of-control medical sphere, we are further compromised by legal absurdities which allow a hospital to demand that all doctors on the staff bring profits to the institution.

Do right and you will be conspicuous.

In a ruling on a pro-patient, pro-quality-of-care initiative, a Georgia Superior Court judge handed down an opinion that only licensed physicians can perform laser surgery or remove foreign bodies from the tissues of the eye. The Medical Association of Georgia and the Georgia Society of Ophthamology introduced the amendment in the state Legislature, attempting to define who may perform surgery under the Medical Practice Act. Therefore, this is an interpretation of existing law that, when it is sustained by the Georgia Supreme Court, will have implications for the protection of patients in every other state in the country.

Bad officials are elected by good citizens who do not vote.

Ronald C May MD, chair of OPHTHPAC, stated that the political action of ophthalmologists is the story of apathy. His complaint is clear and painful. Dr May stated that ophthalmologists continue to rely on a small nucleus of extremely active people. In both the Hawaii Medical Association and the HOS, very few of us take the time to educate both candidates and legislators about quality medical care, or even bother to contribute to campaign funds or PACs. Many physicians eschew politicians and are disdainful of lobbying efforts, but it is vital to befriend political candidates, attend their fund-raisers, offer to help with campaigns. Go to a fund-raiser, greet the candidate, offer to provide medical information and perspective on issues, and contribute $50 or $100 to his or her campaign. He or she won't forget it.

It's a banquet for the ever-circling, litigious vulpine vultures!

To no one's surprise, several personal injury lawsuits are in the hopper against Optical Radiation Corporation (ORC) seeking compensatory and punitive damages as a result of alleged injuries from surgical use of viscoelastic Orcolon. The complaints also charge misrepresentation, fraud and breach of implied warranty. Settlements have been reached in some cases and others are pending. ORC's attorney states, "ORC is defending and will defend against the litigation. I think ORC has acted very responsibly . . ." And the plaintiff's attorney states, "This is a classic case of economics over safety."

We ought never do wrong when people are looking.

The computers are watching you! The Office of the Inspector General has settled a civil claim against a New Jersey eye surgeon for $1 million. Allegedly, the ophthalmologist was involved in a straight-out billing scam: $450,000 of the settlement was for penalties. Proudly the OIG announced, "We're out after the aberrant physician who is perpetrating fraud. We're working closely with the FBI with a new aggressive effort." With the help of the media, prosecutors and politicians are trying to make a case out of stopping health care fraud and abuse. Put on your helmet and flak jacket, and tighten your seat belt; these are scary times for anyone daring to practice medicine.

Ah, the power of advertising! Of influence! Of the media! It can make a body believe anything!

Last November, a two-page ad appeared in *Time* magazine touting no-stitch cataract surgery and naming 25 ophthalmology practices around the country. The American Society of Cataract and Refractive Surgery (ASCRS) conducted a consumer survey and found that the majority of lay people surveyed interpreted the ad as indicating that the described procedure was an improvement over other techniques. ASCRS submitted a letter to *Time* and the practices named, stating that the advantages of sutureless surgery have not been proven. Mammon, thy name is marketing.

An object in motion will always be headed in the wrong direction.

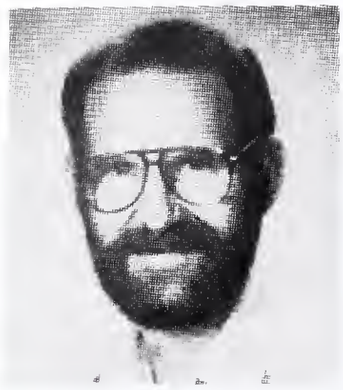
Satisfied with the "success" of the CABG project, HCFA stated that the long-promoted and often-challenged Cataract PPO project is supposedly in the "final stages"of selection in Dallas and Cleveland. The Phoenix project is several months behind. (The whole project is far behind schedule.) "It's safe to say that we're planning to pay less than we would have without the demonstration," stated a HCFA official. The idea is a pet project of Gail Wilensky, now chief health advisor to President Bush. The government has already spent a fortune keeping the project alive, but we can be certain that Gail-Baby is not about to let it die.

Addenda

- Red-tinted lenses have been used on chickens to prevent them from seeing blood; the sight of blood can stimulate fearsome battling that can kill off a quarter of the flock.
- The eyes believe themselves; the ears believe other people.
- Corporate wisdom! In 1877 Alexander Graham Bell offered all of his patents to Western Union for $100,000. He was told to take his "electric toy" and go away.
- If two wrongs don't make a right, try three.

Aloha, and keep the faith

rts



Retirement Plans
•
Investment Management Consulting
•
Life and Disability Insurance
•
Charitable Remainder Trusts

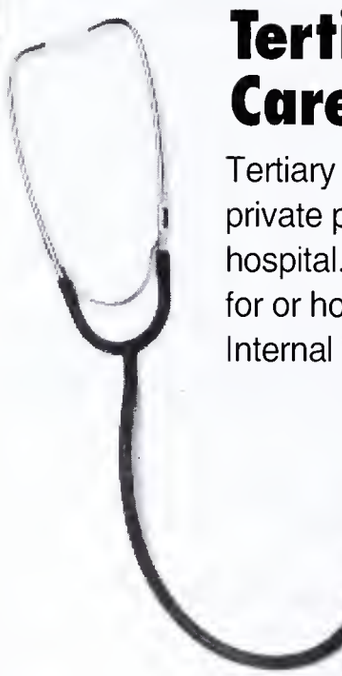
mel r. hertz
MBA, CFP
Certified Financial Planner

Pacific Tower, Suite 2800
1001 Bishop Street
Honolulu, Hawaii 96813
(808) 599-4504

derand

Securities Offered Through IFG Network Securities, Inc. (IFG), Members NASD and SIPC. Financial Planning Services Through Associated Financial Planners, Inc. (AFP), Registered Investment Adviser. mel r hertz is a registered principal of IFG and a registered representative of its affiliate AFP, both of which are otherwise unaffiliated with derand.

THE QUEEN'S MEDICAL CENTER



Tertiary Care Physicians Career Opportunity

Tertiary care physicians for definitive care - private patients - days, nights, weekends, 536-bed hospital. Good salaries, benefits. Must be eligible for or hold Hawaii license. Eligible or boarded Internal Medicine.

Apply curriculum to:
Vice President,
Medical Staff Services.
The Queen's Medical Center
1301 Punchbowl Street
Honolulu, Hawaii 96813

An Equal Opportunity Employer

KAILUA AND/OR KAHALA Equipped medical offices available to share. Medical buildings-excellent referral source. 266-0066.

HAWAII KAI MEDICAL BLDG. 781 sq. ft. or 1,562 sq. ft. office sublease at attractive rents. Vahe Kenadjian (R) 735-0179. McCormack Properties, Ltd. 539-9600.

SPORTS MEDICINE AND ORTHOPEDIC SURGICAL PRACTICE willing to share office space at Queen's POB-1 and Pali Momi POB location, complete staff, managerial system, radiology and physical therapy services avail. Contact Diane Fong at 536-4992 M-W-F or at 487-7231 T & TH.

INTERNIST WILLING TO SHARE OFFICE SPACE in two locations—St. Francis POB and Aiea. Interested physicians—call Jon Won, 536-6988.

OFFICE SERVICES

LOWER YOUR OVERHEAD
Nice Conf. Rms., & Offices Available. Hourly and full time, receptionist, tele. ans. in YOUR name, much more, EXCELLENT IMAGE. Call HEADQUARTERS COMPANIES 522-9494.

POSITIONS WANTED

COLO-RECTAL SURGEON
46 yrs. old, Cleveland Clinic trained. 11 yrs. exper. Board-certified general & colo-rectal surgery. FACS, FASCRS. Seeking group or clinic association. (808) 723-3261.

AVAILABLE FOR LOCUM TENENS
A caring, board-certified, long-time Hawaii physician. Available days or weeks. Call Mary Glover MD, 668-7337.

INTERNIST AND/OR MEDICAL ONCOLOGIST needed to join active practice. This is an excellent opportunity to develop a busy practice in a short period of time. Please call 244-7627, Wailuku, Maui.

SERVICES

MEDICAL BILLING SERVICES
Patient statements, insurance claims processing, accurate management reports. Personalized service, affordable monthly rates. Call MEDCON 247-0591.

LOCUM TENENS PROVIDED
Internal Medicine and family practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS AVAILABLE
Family practice, pediatrics, urgent care. No agency fees. Deal direct. 923-2981.



Praxis gives Dr. Lee independence

Dr. Lee has time for himself now that he uses *Praxis!*

Praxis:

- **Files insurance claims**
- **Generates patient statements**
- **Receives, posts, tracks and deposits payments**
- **And handles all patient inquires**

All Dr. Lee has to do is enter the patient information in his OS/2 computer system*, and let *Praxis* take care of the rest!

Praxis offers the administrative services of a large clinic or hospital to physicians who prefer their autonomy, and gives them more time for their professional and personal lives. For more information, contact us at 941-3363.





Praxis

HAWAII'S BILLING SERVICES FOR
PHYSICIANS IN PRIVATE PRACTICE

Praxis℠ is a wholly-owned subsidiary of DataHouse, Ala Moana Building, Suite 1500, 1441 Kapiolani Boulevard, Honolulu, Hawaii 96814 — *Praxis requires the use of an IBM-PS/2 computer in an OS/2 computing environment — IBM, PS/2 and OS/2 are registered trademarks of International Business Machines Corporation



WHAT KEEPS YOUR FINANCES IN MINT CONDITION?

Private Financial Services.

You always seek the best. When it comes to managing your assets, your approach is no different. Consider Private Financial Services from Bank of Hawaii.

This highly specialized group offers the ultimate in private banking. An officer assigned to you coordinates all your banking, trust and investment activities. At no extra cost to you. The goal always: maximizing your assets, while minimizing your risks.

If your annual income has reached $100,000 and your net worth is $300,000 or more, excluding your primary residence, you require banking that keeps your finances in mint condition, so they'll increase in value. Call 537-8663.

1909S,VDB
Lincoln Copper Penny, now worth over $1,000 in uncirculated condition.

Bank of Hawaii
HAWAII'S BANK

MEMBER FDIC

NOVEMBER 1992
Vol. 51, No. 10
ISSN: 0017-8594

Hawaii Medical Journal

Journals
W1
HA
968

Hawaii Medical Journal
UCSF LIBRARY
Received on: 12-04-92

CONTENTS

HIGHLIGHTS OF THE PROCEEDINGS OF THE HOUSE OF DELEGATES HAWAII MEDICAL ASSOCIATION 9 to 11 OCTOBER 1992 286

HIGHLIGHTS OF THE 136th SCIENTIFIC SESSION HAWAII MEDICAL ASSOCIATION 9 to 11 OCTOBER 1992 290

EDITORIALS 296
The hole in the net
Research with a real purpose
Sensei
J I Frederick Reppun MD

PARALLELS BETWEEN AIDS, LEPROSY AND SYPHILLIS 300
Ilza Veith PhD Dr Med Sci

GESTATIONAL DIABETES IN A RURAL SETTING 306
Joseph W Humphry MD
Jan Kadohiro MPH CDE
Christina Olinghouse MPH
A S Hartwell MD

NEWS AND NOTES 310
Henry N Yokoyama MD

MAKA O KE KAUKA 314
Russell T Stodd MD

CLASSIFIED 315

HAWAII MEDICAL ASSOCIATION 1856

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively
Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

Hawaii Medical Journal

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor: J I FREDERICK REPPUN MD
Founding Editor: HARRY L ARNOLD JR MD
News Editor: HENRY N YOKOYAMA MD
Contributing Editors: RUSSELL T STODD MD, FRANCIS H FUKUNAGA MD
Editorial Assistant: SUSANNE WEEKS
Publisher: STEPHEN LENT

Editorial Board
NORMAN GOLDSTEIN MD
ROBERT T S JIM MD
JAMES LUMENG MD
FRANCIS D PIEN MD

Publications Committee
MYRON E SHIRASU MD (Commissioner)
HENRY N YOKOYAMA MD (Chair)
ERLAINE BELLO MD, STEPHEN R P K BRADY MD, NADINE BRUCE MD, NATHANIEL PH CHING MD, OSAMU FUKUYAMA MD, ROBERT C GALAGAN MD, FRED GILBERT JR MD, ROBERT HOLLISON MD, AMOD JAIN MD, ROBERT T S JIM MD, JOHN H C KIM MD, H LORRIN LAU MD, JAMES LUMENG MD, BAL RAJ MEHTA MD, FRANCIS PIEN MD, J I FREDERICK REPPUN MD, MYRON E SHIRASU MD, KIM THORBURN MD, RONALD J WONG MD, TERRY C Y WONG MD, GUY N YATSUSHIRO, JEANETTE H J CHANG MD

OFFICERS
President: JEANETTE H J CHANG MD
Past President: STEPHEN J WALLACH MD
President-elect: ANDREW DON MD
Treasurer: JOHN S SPANGLER MD
Secretary: FREDERICK C HOLSCHUH MD

County Presidents
Hawaii: RICHARD K M LEE-CHING MD
Honolulu: PAUL A DeMARE MD
Maui: LEONARD H SAKAI MD
West Hawaii: MINOLU R CHENG MD

Delegates to AMA
CALVIN C M KAM MD
RUSSELL T STODD MD

Alternate Delegates to AMA
JEANETTE H J CHANG MD
ALLAN R KUNIMOTO MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Nonmember subscriptions are $25. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Printed in the U.S.A.



What's He Going To Do When Dad's Always Around?

To kids, nothing seems better than having Mom or Dad home all the time. But it's another story when it's all play . . . and no pay. That's exactly what could happen if you were forced out of work because of sickness or injury. As a parent, you owe it to your family to protect your income. Call us today to help safeguard their future . . . and yours!

mel r. hertz, MBA, CFP
1001 Bishop St., Pacific Tower Ste. 2800
Honolulu, HI 96813 (808) 599-4504

MONY
Mutual Of New York
The Mutual Life Insurance Company of New York, New York, N.Y.

If you do business in Hawaii . . .

and want to keep on top of civil cases in our courts, or tax liens, public hearings, incorporations and partnerships, or almost anything else of value in your practice

. . . we have news for you

PACIFIC BUSINESS NEWS

For information call 521-0021.

Highlights of the Proceedings of the House of Delegates Hawaii Medical Association 9 to 11 October 1992

The meeting was called to order by **Speaker Frederick Holschuh** at 1:30 PM on Friday, 9 October 1992, in the Pacific Ballroom of the Ilikai Hotel. Seated on the dais from left to right as seen by the delegates were Past-president **John McDonnell**, President-elect **Jeanette Chang**, Secretary **Andrew Don**, Treasurer **John Spangler**, President **Stephen Wallach** and Paliamentarian **Herbert K W Chinn**. On the right was a table at which sat the Speaker and Vice-Speaker **Leonard Howard**, who alternated in presiding.

Kalani Brady MD was asked by Speaker Holschuh to give the Invocation, followed by the reading of the In Memoriam. First, he read the Memorial Resolutions submitted by the Hawaii Delegation for George Hiilani Mills and George W Starbuck. He then read the litany of the other members who had died during the past year: Harry L Arnold Jr, Robert Ballard, Yen Pui Chang, Philip Corboy, Grace Hedgecock, Raymond Hiroshige, D Ira Hirschy, Kenneth Ho, Abraham Kamsat, Marinus Krijer, Gary Leong, Harold Moffat, George Tyau and Timothy Woo—a total of 16. Speaker Holschuh called for a moment of respectful silence.

Secretary Andrew Don certified that the delegates had been seated and that there was a quorum present.

The business of the House was conducted with dispatch, including the change from being guided by Robert's Rules of Order to the much simpler version by Davis that has been adopted by the AMA.

The high point of the meeting was the address by **Robert McAfee**, AMA Trustee and our special guest. Speaking extemporaneously, he outlined the coming factors that would affect health care in the United States in the imminent new millennium. The aging of our society is paramount; by the year 2000, he opined, there would be 80 million Americans aged 65 or older and their share of the health care dollar is well known to be large. The answer, McAfee said, would be to apply a means test to those eligible for Medicare.

McAfee elucidated that the demands of our society exceed its real needs, which means that we as physicians may be put in the position of having to say "No" at the patient's bedside. The average patient will be more critically ill and will need more of our capacity to help him, including high technology. This will contrast with what the terminally ill should get in terms of health care when death is imminent and inevitable. The need for a Living Will will loom ever larger as the general public becomes better informed about the worth of the quality of life as compared with simply prolonging life.

McAfee, a general surgeon and vascular surgeon from Portland, Maine, spoke easily and earnestly. He exhorted us all to stand fast for principle. "Our patients don't want to lose control of the quality of life—and they don't want us to lose control of our professionalism when it comes to their own health care," he said. He emphasized the analogy with a 4-legged stool or chair: We physicians need to assure our patients that they will have available to them **access, care, quality** and **capability** on our part.

McAfee closed by decrying the current trend among older physicians to advise their progeny and other young people *not* to go into medicine. "The idealism is still out there," he stated, "and the satisfaction of reaching into a dying young patient's abdomen in the emergency room, quickly and surgically past all the bright red blood, feeling for the ruptured spleen and closing your trained fingers about the pumping blood vessel, thus saving a life that has not had a chance to blossom as yet, has a compensation that cannot be measured in dollars."

We saw before us at the podium a warm and dedicated "healer" who has a social conscience. The fact that he is a surgeon does not belittle all the other generalists, specialists and subspecialists in our profession.

The meeting closed when the Speakers pounded the gavel for a recess and directed the further proceedings of the House to continue in the 3 Reference Committees, with a report from them to the House on Sunday, 11 October at 11 AM.

The House of Delegates reconvened at 11 AM on Sunday 11 October 1992 in the Pacific Ballroom of the Ilikai Hotel in Waikiki under the direction of Speaker Frederick Holschuh and Vice-speaker Leonard Howard.

The first order of business was the distribution of ballots for the election of officers and others, during which the delegates lined up at the buffet table for the catered cold luncheon.

The reports of the reference committees then followed in order. The first was the **Reference Committee on Miscellaneous Business** chaired by **Virgil Jobe** and whose members were **Herbert K W Chinn, Michael Nichols and Rhoads Stevens**.

The House adopted the various changes in the Bylaws, the highlights of which included:

(1) Military members previously not required to pay dues may henceforth have to pay dues as determined by the Council;

(2) new business may be brought up at the HoD meeting by 2/3 consent, rather than by unanimous consent; and

(3) there will be a new section of membership to include those physicians who are over 70-years old and have been members in good standing for at least 15 years, as **Emeritus Members**.

They will have the right to serve on committees and have a vote, whether they maintain their licenses to practice or not. The House formally adopted **Resolution No 1** and will be guided henceforth by Davis' Rules of Order. It also adopted the Reference Committee recommendation on **Resolution No 3** that the lengthy resolution submitted by Theresa Smith of West Hawaii be considered by HMA, and specified that it be referred to the Health Care Economics Committee for a report to Council in January. Her resolution essentially spoke for the reform of private practice in which third parties would be relegated to a lesser role. Myron Shirasu's **Resolution No 4** that urged the HMA to seek a way to have all physicians in Hawaii be members of the HMA as a requirement of licensure to practice was not recommended for adoption by the RefCom; by a slim margin, the House rejected the resolution. **Resolu-**

(Continued on page 288) ➤

For the many faces of mild hypertension

MILD



THE MOST WIDELY USED CALCIUM ANTAGONIST AS MONOTHERAPY FOR MILD HYPERTENSION[1]*

- Effective 24-hour control[2]
- Single-agent efficacy
- Well tolerated†
- No adverse effects on total cholesterol, plasma glucose levels, renal function,‡ or serum electrolytes[3-6]

ONCE-DAILY

Calan® SR

verapamil HCl

SUSTAINED-RELEASE CAPLETS

120 mg

180 mg

240 mg

For the many faces of mild hypertension

*The recommended starting dose for Calan SR is 180 mg once daily. Dose titration will be required in some patients to achieve blood pressure control. A lower initial starting dosage of 120 mg/day may be warranted in some patients (eg, the elderly, patients of small stature). Dosages above 240 mg daily should be administered in divided doses. Calan SR should be administered with food.

†Constipation, which is easily managed in most patients, is the most commonly reported side effect of Calan SR.

‡Verapamil should be administered cautiously to patients with impaired renal function.

References: 1. Data on file, Searle. 2. Edmonds D, Wurth JP, Baumgart P, et al. Twenty-four-hour monitoring of blood pressure during calcium antagonist therapy. In: Fleckenstein A, Laragh SH, eds. *Hypertension—the Next Decade: Verapamil in Focus*. New York, NY: Churchill Livingstone; 1987:94-100. 3. Midtbø KA. Effects of long-term verapamil therapy on serum lipids and other metabolic parameters. *Am J Cardiol*. 1990;66:131-151. 4. Fagher B, Henningsen N, Hulthén L, et al. Antihypertensive and renal effects of enalapril and slow-release verapamil in essential hypertension. *Eur J Clin Pharmacol*. 1990;39(suppl 1):S41-S43. 5. Schmieder RE, Messerli FH, Garavaglia GE, et al. Cardiovascular effects of verapamil in patients with essential hypertension. *Circulation*. 1987;75:1030-1036. 6. Midtbø K, Lauve O, Hals O. No metabolic side effects of long-term treatment with verapamil in hypertension. *Angiology*. 1988;39:1025-1029.

BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol and propranolol clearance may occur when either drug is administered concomitantly with verapamil. A variable effect has been seen with combined use of atenolol. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in an increased sensitivity to lithium (neurotoxicity), with either no change or an increase in serum lithium levels; however, it may also result in a lowering of serum lithium levels. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Verapamil may inhibit the clearance and increase the plasma levels of theophylline. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. There was no evidence of a carcinogenic potential of verapamil administered to rats for 2 years. A study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes, reversible non-obstructive paralytic ileus. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, galactorrhea/hyperprolactinemia, increased urination, spotty menstruation, impotence.

2/13/92 • P92CA7196V

Address medical inquiries to:
G.D. Searle & Co.
Medical & Scientific Information Department
4901 Searle Parkway
Skokie, IL 60077

© 1992 Searle

P92CA7233T

SEARLE

Box 5110
Chicago, IL 60680-5110

tion No 5 submitted by Russ Stodd concerning the qualifications for State Health Director was amended by the RefCom in terms of language and was passed by the House. It stipulates the requirements of being an MD with public health training or experience and administrative ability in management. **Resolution No 6**, also by Russ Stodd, on the CON statute, was amended by the Reference Committee in its wording but reiterated the HMA's opposition to the statute.

Next was the report of the **Reference Committee on Public Health** chaired by **Patricia Blanchette** with members **Patricia Chinn**, **Craig Kadooka** and **Calvin Miura.** In considering late **Resolution A** submitted by **Jack Lewin** and dealing with Tobacco-free workplaces, the RefCom modified the Resolved. The House adopted the resolution as modified, which asked for legislation to include the restriction on smoking in private office buildings and workplaces. **Resolution No 7,** authored by Neal Winn, urged the HMA to push for legislation to provide a 24-hour hotline that health care workers could use to receive counseling when exposed to bloodborne pathogens. The House adopted the resolution as modified by the Reference Committee to indicate that the HMA had recommended such in the past but wanted it properly funded.

Much time had been spent by the Reference Committee in listening to testimony on **Resolution Nos 8, 11 and 13**, all of which were directed at the problem of whether Advanced Practice Registered Nurses should be allowed to prescribe independently. The Reference Committee decided to consider them all together and came up with 3 recommendations. The House deliberated at great length, with many delegates voicing their opinions. Finally it adopted the first recommendation after it had been amended to read: *That **Resolution No 8,** which urged collaboration with the Hawaii Nursing Association in defining specifically what is meant by "collaboration" in terms of responsibility and liability, be referred to the HMA Nurse Prescriptive Authority Committee and report to Council at the January '93 meeting.*

Next, the Reference Committee had recommended that **Resolution No 11** not be adopted, but this was amended on the floor of the House so as to be referred to the same committee of the HMA and for it to report to Council at the same January meeting. This was passed by the House, as amended.

The Reference Committee's third recommendation was to adopt **Resolution No 13** proposed by Sakae Uehara but with changes. The gist of the original Resolveds had been to allow Council to make a policy statement on behalf of the HMA. The Reference Committee's first move was to change a Whereas because of a controversy as to whether a survey of members on the issue still had not been finalized. The House finally voted this change down, allowing the Whereas to remain intact, ie the questionnaire and poll was still being studied by the HMA. The RefCom's recommendation that the original intent of the Resolution as capsulized above be replaced by a new **Resolved, that the HMA Council be directed to oppose any legislation allowing Nurse Practitioners to prescribe**, resulted in a prolonged debate that finally ended by a vote against the RefCom's recommendation. The House then adopted **Resolution No 13** as originally intended. This was in conformance with the House action on Resolution No 8 and Resolution No 11, ie all 3 resolutions ultimately to come before the Council at its meeting in January. However, the House also adopted an amendment to the third Resolved of Resolution No 13, amended to authorize the Council to ask for a referendum from the membership if it saw fit to do so. In that case, the results of the referendum would determine the policy of the HMA and be binding on the Council and the House of Delegates.

The third and last report to the House came from the **Reference Committee on Finance and Administration**, chaired by **Helen Percy**; the other members of that committee were **Jeffrey Fong**, **Richard Goodale** and **Carl Lehman**. Its agenda was a long and important one. The highlights of its many recommendations included the formation of a new **Domestic Violence Committee**, which the House adopted. The House also adopted the recommendation of the Reference Committee that recommendation 5a) of the Long-Range Planning Committee be amended to indicate a change in the name of the Health Care Economics Committee to **Health Care Access and Economics Committee.**

The RefCom then considered the Report of the Editor of the *Hawaii Medical Journal*, the Report of the Publications Committee and Resolution No 2 together. The latter asked that the House approve an increase from $12,000 in the HMA budget to $24,000 this next year in order to accommodate the large backlog of submitted manuscripts for publication in the *Journal*, ie doubling its size. This was also recommendation 2 in the Publications Committee report. The Reference Committee recommended that both of these not be adopted; the House agreed. It then suggested that Recommendation 1 of the Publications Committee not be adopted despite the fact that a new subscription rate of $25 for nonmember subscribers and $18 for members had been given the OK by the Finance Committee and the Council awhile ago. The House voted this recommendation of the Reference Committee down, thus authorizing the increase in subscription rates. The Reference Committee's recommendation on **Resolution 2** was not to adopt, with which the House concurred. This meant that the proposal to charge authors a fee per page of manuscript if published in the *Journal* was not allowed. The Reference Committee made a 4th recommendation that the Long-Range Planning Committee "Investigate and review the role and function of the *Journal*, with a report to the Council at its April '93 meeting." The House agreed that this should be done.

The Reference Committee took up the Report of the **Treasurer/Finance Committee** and made the following recommendations: That recommendations 3, 4, 5 and 6 be adopted with only one change in 6: That every member bring in **two,** rather than **one** new, dues-paying member this coming year. The House concurred. The Reference Committee then recommended adoption of the TFC's recommendation 1 which was to keep the dues the same at $575/annum. It made mention of a minority report by Reference Committee member Jeff Fong who dissented and suggested that dues be increased to $585—an increase of $10. He was allowed by the Speaker to put this in the form of an amendment. During the discussion, an additional amendment was proposed to increase the dues to $600 a year in view of the unlikelihood that we would be able to get 85 new members.

(Continued on page 294) ➤

An innovative educational program for critical care practitioners ...

Controversies in Critical Care

January 20 - 23, 1993 ♦ Hyatt Regency Maui ♦ Maui, Hawaii

Society of Critical Care Medicine

The Society of Critical Care Medicine, recognized world-wide for its dedication to critical care education and research, is excited to introduce a new educational program, **Controversies in Critical Care**.

This program offers you the unique opportunity to debate and discuss controversial critical care issues and questions with recognized international critical care experts and your peers. Topics are offered in a question format, and cover the spectrum of multidisciplinary critical care. Fifteen sessions will be offered, including *Hemodynamic Monitoring: When and What to Measure?*, *Therapeutic Goals in Resuscitation from Shock: When do We Stop?*, *Fluid Therapy in ARDS: Is Diuresis Beneficial?*, and 12 other topics.

Continuing Medical Education

The Society of Critical Care Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians. The Society of Critical Care Medicine designates this continuing medical education activity for up to 22.5 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association. The Society of Critical Care Medicine is accredited by the California Board of Registered Nursing to offer continuing education credit to nurses (BRN #CEP 8181).

Hotel and Travel Information

The Hyatt Regency Maui is one of Hawaii's most beautiful and luxurious resorts. Bring your whole family — the Hyatt offers recreational activities for everyone, even children as young as 3 years old! Special travel and hotel rates are available for **Controversies** course attendees. For hotel room reservations, call the Hyatt Regency Maui at (808) 667-4498; be sure to indicate that you are an SCCM course attendee. Reservations made after December 20, 1992 will be subject to availability at the special rate. The Hyatt Regency Maui is located at 200 Nohea Kai Drive, Lahaina, Maui, HI 96761-1990. Conventions in America — SCCM's official travel company, offers significant airfare discounts and other benefits when you make your reservations through them. Call Conventions in America at (800) 929-4242 or outside the toll-free area, (619) 587-3555.

Don't miss this opportunity to participate in this innovative international critical care conference!

Enrollment Form ***Controversies in Critical Care ♦ January 20 - 23, 1993 ♦ Hyatt Regency Maui — Resort at Kaanapali Beach***

Name(Last) (First) (MI)

❑ MD ❑ PhD ❑ RN ❑ CCRN ❑ FCCM ❑ Other

Mailing Address

City State

Zip Country

( ) ( )

Daytime Phone Daytime Fax

Primary Specialty: ❑ Anes ❑ EM ❑ IM ❑ Nursing ❑ Peds ❑ Surg ❑ Other:

Tuition

SCCM Members:	
❑ Physicians	$400.00
❑ Associate Members, Nurses, Allied Health Personnel	$325.00
Nonmembers:	
❑ Physicians	$475.00
❑ Fellows*, Residents*, Interns*, Nurses, Allied Health Personnel	$400.00

*Requires an accompanying verfication letter with the enrollment form.

Do you have any special needs (mobility impairment, sight impairment, etc.)? If so, indicate your needs here:

For your convenience, fax enrollments are accepted with credit card payments.

❑ Check or money order enclosed *(must be drawn on a U.S. bank)*

❑ I authorize the Society of Critical Care Medicine to charge my registration fees to the following account: ❑ American Express ❑ MasterCard ❑ VISA

Credit Card number Expiration date

Signature

Refund requests must be submitted to the SCCM office in writing for a full refund minus a $50 processing fee.

Return completed enrollment form with payment or credit card information to, or for more information contact:

Future *Controversies in Critical Care* Dates

Mar 17 - 20, 1993	The Resort at Squaw Creek Squaw Valley, CA
Apr 21 - 24, 1993	Conrad Cancun Cancun, Mexico
July 28 - 31, 1993	Sheraton Grande Torrey Pines La Jolla, CA
Sep 29 - Oct 2, 1993	Lowes Le Concorde Quebec, Canada
Dec 1 - 4, 1993	The Hilton Pointe Resort at South Mountain Phoenix, AZ

Society of Critical Care Medicine ♦ Programs Department
8101 East Kaiser Boulevard ♦ Anaheim, CA 92808-2214
Phone (714) 282-6000 ♦ Fax (714) 282-6050

Highlights of the 136th Scientific Sessions Hawaii Medical Association 9 to 11 October 1992

On Friday morning October 9th, Chair **Rhoads Stevens MD** opened the Scientific Session promptly at 8 AM by turning the program over to **Steve Moser MD** of Maui, moderator for the day; Steve is the chair of HMA's Committee on Environment. He in turn introduced the first speaker, our own **Duke Bainum MD**, a Representative at the Hawaii State Legislature. Duke spoke on the relationship between physicians, politics and environmental concerns.

He cited the mounting problems with preserving the environment in our state, not only for the sake of its inhabitants but also to preserve and enhance tourism, which is the State's lifeblood. He said the battle at the State Legislature was an uphill one, and he urged HMA members to express concerns to their own legislators, if not to enter the political arena and run for office themselves (Duke is the only physician in the Legislature this session).

He was followed by Janet Sherman MD, in private practice of internal medicine and lecturer on occupational and environmental medicine and toxicology, dividing her time between Alexandria, Virginia, and Makawao on Maui. She spoke as we followed her syllabus of her book on *Chemical Exposure and Disease*.

My notes written on her syllabus (it had been handed out to the audience of some 75 to 100 attendees) reveal her mention of the unique febrile illness with severe headache and malaise of unknown etiology restricted **only** to some of the veterans of the Gulf War; of male workers in a specific factory who developed a cluster epidemic of testicular atrophy and consequent childlessness in those families; of the increase in incidence and severity of respiratory difficulties the result of geothermal venting; of the morbid effects of formaldehyde on people living in mobile homes (the chemical in the building materials); of the relationship between arsenic and nasal cancer; of the lethal effects of chlorinated cyclodienes and benzene-ring chemicals such as Chlordane (now banned as anti-termite), Lindane (the active ingredient in Kwell shampoo and cream for lice) and Pentachlorophenol (used to Wolmanize lumber); of Durssan and its relative "Agent Orange" (2,4-D and 2,4,5-T); and of PCB, DES, Dioxin and Dibenzofuran that are related to DDT (now banned as a pesticide) and to Tamoxifen (the latter being used increasingly as prophylactic chemotherapy in breast cancer). In the case of Tamoxifen, the oncologist has to weigh its long-term carcinogenic effect against its short-term anti-cancer-spread-and-recurrence benefit, depending on the woman's age, stage of malignancy, etc.

Sherman mentioned in closing our concerns here in Hawaii, as well as the concerns of South Pacific islanders, over the incineration of chemical warfare ammunition at Johnston Island some 900 miles southwest of Hawaii that might be contaminating the waters of the Pacific Ocean and its fish in the food chain.

Clyde Ishii MD, Honolulu plastic surgeon, gave his talk on "Cumulative Trauma Disease" (CTD) of the human upper extremities. He described numerous syndromes involving painful swelling of various muscles and tendons, the result of repetitive movements to excess and resultant lost time from work compensable under Workers' Comp. The answer lies in ergonomics, the study at the workplace of methods to prevent such kinds of stress.

After the break, in which we were all urged to visit the large number of exhibitors who had given their support to the HMA session, the first speaker was **Thomas Sinks PhD** of CDC in Atlanta. Steve Moser had introduced him as being one of the researchers from CDC who came to Hawaii to assess the impact of the smoke from burning sugarcane (immediately prior to harvesting) on the workers. Sink's presentation: "Biogenic Silica and Human Disease" was his report of the findings. They were discused at a community meeting the evening before in Kahului, Maui, and were reported in both daily newspapers. The results of studying 335 sugarcane workers on Maui and the Big Island indicated no health hazard, particularly no increase in the incidence of mesothelioma of the pleurae such as can be caused by asbestosis. The Biogenic Silica Fibers (BSF) in the smoke from burning cane average 12 microns by 1 micron in size and appear similar to those of asbestos. It was interesting to learn that from 1960 to 1989 the Hawaii Tumor Registry has on file 93 cases of mesothelioma in the State; all but 2 were Island residents.

Sinks was followed by **Philip Loh PhD**, Professor of Microbiology at UH, who spoke on the topic of "Human Enteroviruses in Coastal Waters". He was impressively knowledgeable in his field. Amazingly Oahu's wastewater treatment plants are not designed to kill viruses, of which there are >100 varieties ranging from the trivial to the lethal; the latter predominate as Hepatitis-A. Nature has a way of countering these; coastal waters teem with marine bacilli that are antiviral. Harvesting the viruses for examination and identification is extremely difficult, Loh said.

As for the enterococci, Hawaii's standard for coastal recreational waters is a count of <7 colonies/ml. They need to be in high concentration to be pathognomonic, he assured us.

"Indoor Air Quality" was the next topic by **John Endicott MD**, head of the Occupational Disease Department at Straub Clinic and Hospital. The air-conditioning of buildings, so essential for creature-comfort even in Hawaii, has given rise to many problems for the workforce in them. It has come to be known as the "sick-building syndrome." Fifty-two percent of the etiology is inadequate ventilation, Endicott averred. Each person requires 15 cubic feet of exchange per minute, "and it must include outside air being brought in because recirculating stale, confined air adds to the adverse effects," he said. "At an average cost of >$2 a cubic foot, the overhead expense mounts up; architects and engineers must be experts in their fields." Endicott cited formaldehyde in building materials and in the chemicals used by housekeepers for maintenance as the main culprits.

The last speaker of the morning session was **Mary Rose Teves** from the Environmental Planning Section of the State Department of Health, who spoke

(Continued on page 292)➤



Praxis gives Dr. Saito choices

Dr. Saito spends his free time with the family, now that he uses *Praxis!*

Praxis:

- **Files insurance claims**
- **Generates patient statements**
- **Receives, posts, tracks and deposits payments**
- **And handles all patient inquires**

All Dr. Saito has to do is enter the patient information in his OS/2 computer system*, and let *Praxis* take care of the rest!

Praxis offers the administrative services of a large clinic or hospital to physicians who prefer their autonomy, and gives them more time for their professional and personal lives.

For more information, contact us at 941-3363.

Praxis

HAWAII'S BILLING SERVICES FOR PHYSICIANS IN PRIVATE PRACTICE





Praxis℠ is a wholly-owned subsidiary of DataHouse, Ala Moana Building, Suite 1500, 1441 Kapiolani Boulevard, Honolulu, Hawaii 96814 — *Praxis requires the use of an IBM-PS/2 computer in an OS/2 computing environment. — IBM, PS/2 and OS/2 are registered trademarks of International Business Machines Corporation

in place of **Bruce Anderson PhD**, the Deputy Director. She emphasized the theme of "changing people's behavior", a formidable task.

She and a panel of the morning's speakers then fielded questions from the audience. Environmental Medicine, the morning's theme, was well-covered by the speakers from a wide range of expertise and the attendees were appreciative.

Also covered in conjoint scientific sessions were colonoscopy, endoscopy of the female reproduction tract, and genito-urinary tract; and bronchoscopy, endoscopic laser-assisted dacryocystrhinostomy, and of the ear, nose and throat.

Saturday, 10 October 1992

The Session started promptly at 10 AM at the Ilikai as **David Fitz-Patrick MD,** the morning's moderator, made a few introductory remarks before introducing the first speaker. "Biotechnology in Medicine" was the morning's theme.

John Glasby MD MPH, Assistant Professor of Medicine at the UCLA School of Medicine offered "An Overview of Biotechnology—in the forefront of the new medicine". Prof Glasby defined it as (a) based on cloning, in order to obtain specific proteins; (b) it consists of doing research on mammalian antibody functions; and (c) it opens up an area of gene therapy. This new technology in medicine is expensive, and it is not bereft of toxic by-products. He spoke primarily of Humalin, human growth hormone, calcitonin and interferon. The caveat was that in attempting to cure one disease by this means, sometimes other diseases result.

Cloning is meant to increase by large amounts the natural, beneficial, native proteins. He cited Hairy-cell Leukemia patients (they usually die within 10 years), who can have their lifespan increased by the use of interferon, although it often works very slowly—up to 6 months in some cases. It can produce flu-like symptoms and tachphylaxis with time.

The growth factor G-CSF is known to increase the number of granulocytes and lymphocytes as a counter to chemotherapy in cancer patients. Glasby diverged from the scientific to the financial aspect to point out that it used to cost $8,500 for in-hospital therapy over a period of 7.3 days per cycle of treatment, but by developing a protocol for the patient to do it at home the cost was reduced to $2,300 per cycle and the number of days was halved. As an aside, Glasby related that Medicare—on the basis of DRGs—paid the hospital $5,300 even though billed for the actual cost of only $4,230!

Erythropoietin has been given to patients with AIDS to raise their Hgb level, which is severely depressed by AZT; this allows for fewer transfusions of blood. However, G-CSF when given to AIDS patients for therapeutic reasons increases the growth of Human Immunodeficiency Virus within macrophages; this requires the administration of AZT. Consequently, the cost of treatment escalates a great deal. Similarly AZT + IF causes leukocytes to fall; therefore, adding G-SCF is remedial. Gm-CSF has been found to kill cancer cells, but only some of the time; it is related to Interleukin-3 and helps to increase platelet counts.

Kenneth Lee Jones MD Professor of Pediatrics and Endocrinology at UCSD was the next speaker. His topic had an intriguing title: "Recombinant Growth Hormone: Cutting Edges and Perilous Ledges". The original growth hormone was derived from animals. Cloning has permitted human growth hormone to be recombinant (hGH). Whereas the former product was not very effective, hGF really helps patients with GH Deficiency (GHD). It can double the rate of growth of a child, or even more than that, especially if given as early as possible and twice weekly. The drawback is its cost — $10- to $18-thousand a year. It is very effective in normalizing kids with Turner Syndrome.

In adults, after growth has stopped, it has improved the strength of muscles and increased BMR, but regression takes place if the regime is stopped. It has been used effectively in severely burned patients. It has been tried in the aged but there is a caveat in that it increases the likelihood of cancer and brings on diabetes; it also brings on a return of reproductive powers. As an anabolic agent favored by some athletes, it is in disrepute.

Dr Glasby returned to the podium for his second presentation of the morning: "Hematopoietic Growth Factors". He recapitulated what is known about Gm-CSF: That it increases the output of granulocytes. However, it is also known that these seem to adhere to the lining of the capillaries of the bronchial tree and cause shortness of breath.

As for erythropoietin, its use to improve the production of red cells and Hgb levels, thus diminishing the need for blood transfusions, may permit a more aggressive chemotherapy for cancer and in this way more "cures".

Administration of Gm-CSF results in idiopathic fever quite often; this can be countered by the co-administration of erythromycin; the drugs seem to be synergistic, but the outcomes are still in doubt in terms of mortality and the rate of infections. Gm-CSF has been found to be an effective anti-cholesterol agent. Its use together with Gentamicin for severely burned patients has also met with success.

David Fitz-Patrick helped the speakers as a panel field questions and answers from the audience.

Sunday, 11 October 1991

Because the final meeting of the HMA's House of Delegates had been moved up to 11 AM, this morning's scientific session was limited to 2 1/2 hours. Once again the attendance was high—75 to 100 in the Ilikai's Pacific Ballroom.

The morning's theme was "Family Violence and the Physician". Appropriately, it was moderated by **Robert Hollison MD,** a member of the Hawaii Chapter, American Academy of Family Physicians, and Medical Director of The Queen's Health Care Plan and Island Care.

The first presentation was by 2 speakers: **Carol Lee,** Executive Director of the Hawaii State Committee on Family Violence, and **Julie Owens**, Program Director of HOPE for Battered Women that is a part of the same State committee. Their topic was entitled "Domestic Violence: What they *didn't* teach you in medical school."

Lee stated that 98% of the mayhem was perpetrated by men against women and that 50% of all women had suffered abuse by men. She felt that this was a manifestation of men wanting to assert and maintain their power over women, and their control. Lee went on to say that alcohol is most often the factor that re-

(Continued on page 294) ➤



Vehicle leases, tailor-made.

A lease should be tailored to fit the customer like a custom-made suit. At GECC Hawaii Leasing, this is a credo that sets us apart from the rest.

If you need vehicles, we'll help you find what's exactly right for your operation. From one car to a fleet of cars, trucks or tour buses.

And we'll write terms to help you prosper—short term, long term, seasonal, flexible.

Don't buy a lease off the rack. Call us for a custom lease. It will make you look good.

GECC Financial

EQUAL HOUSING LENDER

Member FDIC. A unit of GE Capital.
700 Bishop Street, 9th floor, or 1210 N. Nimitz Highway, Phone 527-8333.

leases men's inhibitions since they are more prone to its use than women. Another striking statistic is that in comparison with the war in Viet Nam, wherein the U.S. suffered 50,000 casualties, during the same period 54,000 women were murdered!

Owens followed with one more statistic: That 22% to 35% of ER cases involve a battered woman, often hidden as "accidental" in origin. In addition, these cases often involve child abuse as well, to as much as 70%.

The problem is that most of the time both treatment and referral for help are resisted by the victim either because of fear of reprisal or because the perpetrator, after sobering up, is remorseful and penitent [from personal experience in my practice, *the* most difficult thing for a physician to do is to desist from calling in the authorities, to desist from needed referral to social services or to a counselor when a battered woman begs the physician not to do so. The best we can do—most of the time—is to be a warm shoulder for the victim to cry on; there is often no one else to whom the woman can confide her yearning for empathy, which can be very supportive and therapeutic for an ego that invariably has been severely bruised as well].

It was a good presentation from people in the front line. It was nothing new to many of us, but it highlighted a local and national societal problem that is getting worse.

This set the stage for **Robert McAfee MD**, who was the next speaker. We had already heard him speak on Friday—as a Trustee of the AMA; this time he spoke as a general and vascular surgeon from Portland, Maine, and also as a representative of the AMA. That organization of >50,000 U.S. physicians has declared war on the problem of spouse and child abuse by initiating the AMA Alliance against Violence. This was McAfee's main interest and the topic in his presentation.

He started out by mentioning CDC's new project: Injury prevention and control. Then came more statistics: "One of every 27 black males is likely to be murdered; a hundred thousand kids go to school bearing arms; a survey of Asians in the U.S. revealed that none of the men admitted to any abuse of their wives, but the women revealed it was a prevailing fear in their lives," McAfee reported.

The AMA's Physician Coalition Against Family Violence emphasizes the role all physicians need to take: "Someone to talk to. Someone to listen." *Any* physician. They are 87 times more likely to be consulted than the police, ministers, social workers or friends and relatives," he said. Citing more statistics, McAfee said that 35 instances of violence per hour pervade the Saturday morning TV cartoons for kids; that physicians need to ask the specific question as they ask for FH, PMH, PSH, PObs and sexual history, past or present use of drugs, of women: "And, have you ever been threatened or abused?" The AMA stresses an approach to *all* physicians, it has a "talk to someone" poster for physician's offices, for the asking.

As an aside, McAfee reminded the audience that Maine is a state wherein farmers and hunters are numerous, and they all "bear arms", but he strongly encourages some measure of gun control in this country. He also responded to the statement by the previous speakers that 2% of the abused are men: "That figure should be upped to 5%," he said.

The last presentation of the morning was a panel that responded to the questions posed by the audience. Dr McAfee, Carol Lee and Julie Owens were joined by attorney **Michael McGuigan** of a Honolulu law firm. The latter spelled out the fact that child abuse is reportable by law; on the other hand, spouse abuse is not. The wishes of the abused, the victim, are paramount and should not be arbitrarily overcome by the physician. Persuasion can be and should be practiced, if appropriate, but the desire for privacy needs to be respected. A notation in the medical record that permission to refer was *not* given by the abused, should be recorded.

Dr McAfee cited a new program in which the daughters of an abused parent are counseled in their growing years in an attempt to prevent it occurring in the next generation.

We were left with the impression that the societal problem was very well presented and that physicians need to be alerted to its impact because of their roles as "confidants". However, we were also left with a sense of being rather powerless in being able to provide a remedy.

It was good to see in the Sunday *Honolulu Star-Bulletin* and *Advertiser* of 11 October that *Advertiser* staff writer Vickie Ong interviewed Dr McAfee and reported his views. In conjunction with the article was a box that announced KITV's scheduling of the 30-minute TV documentary "Lover, Batterer" produced by the State Attorney General's Office.

JI Frederick Reppun MD
Reporter for the HMA

(Continued from page 288)

The House approved this amendment and ultimately approved the dues increase to $600 a year.

The House approved the new balanced budget as recommended by the RefCom, which had recommended approval of Item 2 of the TFC recommendation: That the proposed balance budget be adopted. In the process, the House had approved re-inserting into the budget the $10,000 for the President to use as a contingency fund.

Vice-Speaker Howard announced the results of the election of officers, Councilors, and the Nominating Committee for next year.

Steve Wallach administered the oath of office to the newly elected, and turned over the gavel to HMA's new President Jeanette Chang. He was given a standing ovation for his contribution to the Association this past year. It was just about 4 o'clock of a Sunday afternoon when the 136th annual meeting of the Hawaii Medical Association was adjourned.

J.I.Frederick Reppun MD
Reporter for the HMA



Because One Size Doesn't Fit All...

New Humulin 50/50 is the tailor-made answer to individual patient needs. A unique combination of equal amounts of Regular human insulin and NPH human insulin, it will be useful in situations in which a greater initial insulin response is desirable for greater glycemic control.

Like Humulin 70/30*, new Humulin 50/50 offers the convenience and accuracy of a premix. And it can be used in conjunction with an existing 70/30 regimen.



New Humulin 50/50

50% human insulin isophane suspension
50% human insulin injection (recombinant DNA origin)

The Newest Option in Insulin Therapy

WARNING: Any change of insulin should be made cautiously and only under medical supervision.

* Humulin® 70/30 (70% human insulin isophane suspension, 30% human insulin injection [recombinant DNA origin]).

Lilly

Global Excellence in Diabetes Care
Eli Lilly and Company
Indianapolis, Indiana
46285

HI-7911-B-249343 © 1992, ELI LILLY AND COMPANY



The hole in the net

In October of 1992, the news media played up the death of Lance Lawrence, 38, a client of the State's Department of Human Services (DHS) in Hilo, who died as a result of a virulent dental abcess. The implication is that had he been seen and treated earlier, the outcome might have been different.

The full exposé of the facts has not been available to us. What was reported seemed to indicate that a part of the problem was the reluctance of a dentist to treat a Medicaid patient. Many physicians—and undoubtedly many dentists likewise—are disinclined to accept Medicaid patients because the remuneration is lower than the professional's overhead expenses.

This is a societal problem. It has large adverse implications when it comes to health care programs such as Medicaid, Medicare and even indemnity insurance programs.

We physicians have a certain empathy with our colleagues in dentistry; we know that the "business" aspects of practicing medicine have become increasingly burdensome. However, the case of Lance Lawrence is a cause for concern for us physicians, too.

According to the HMA office, 66% of our membership accept Medicaid patients despite the lower fee paid for service; some of these physicians have to limit the number of such patients, or will attend only those who have been on their books for a long time, not accepting new ones. That is quite understandable and reasonable. Nevertheless, we regret that circumstances are not conducive to raising the percentage to a higher level.

One cannot help but reflect that "in the old days", the solo physician would charge a rich patient more, in order to treat the poor patient for nothing. With the advent of medical insurance and of government welfarism, that era is long gone. Unfortunately, with it has gone some of the "charity" that is supposed to be inherent in the healing professions. The physician does not feel charitable toward the faceless third party payer. The dedicated physician, however, still feels charitable toward his or her patient as an individual, and very often dispenses medical treatment freely. It may or may not show on the books. It is not something we brag about or publicize for the most part.

Charity is inherent in being a professional ("professionals" initially were only 3: Doctors, lawyers and clergy).

Perhaps we as physicians, as we contemplate the inroads of third party payers into the practice of medicine and the current crisis occasioned by the rise of health care's percentage of GNP, need to be reminded that our professionalism demands that we turn no human away who comes to us for succor, without seeing that he or she and the ailment be properly managed.

J I Frederick Reppun MD
Editor

Research with a real purpose

Joseph Humphry MD is an internist at the Waianae Coast Comprehensive Health Center (WCCHC). This a regional clinic that gets both public and private support in providing primary and emergency health care in an outlying community with a high population of the poor, the uninsured and the underinsured. The Hawaii Medical Association supports its existence and its efforts.

The clinic is about 31 miles from Kapiolani Medical Center for Women and Children (KMCWC), a tertiary facility for high-risk pregnant women and their neonates pre- and post-delivery. During peak hours of traffic congestion, it may well take 2 hours for an ambulance to transport a patient. Until St Francis West opens an obstetrical unit, there are no facilities in the Waianae region, or anywhere closer than KMCWC, even for normal uncomplicated deliveries. If the one ambulance stationed there is out, it takes some time for another to come from Wahiawa.

Humphry says that WCCHC manages 400 obstetrical cases a year and estimates that perhaps twice that number of women in the region have babies delivered each year. He also estimates that 60% of them are in the Medicaid category.

In perusing the article, the reader will quickly see how Humphry's findings prove that excellent medical care in an outlying facility, in close contact with the tertiary facility by electronic communication, and good rapport between the primary care providers and the consultants, not only improves the outcome but saves dollars. "Prevention is better than cure" is an age-old adage that still holds true, particularly in the case of pregnant diabetic women who are the subject of the article.

The teamwork entailed in such an endeavor is an essential ingredient of success; however, it is very difficult to assess the savings in dollars as compared with the $25,000 to $50,000 spent on a low-birthweight neonate that needs to be in the pediatric intensive care unit for very long.

The WCCHC effort is worth the nominal support of HMA; would that support could be a bit more tangible!

J I Frederick Reppun MD
Editor

(Continued on page 298) ➤

We asked all the employees at West Beach Travel what they think of their new phone system.

They both love it.

Small businesses don't get much smaller than this.

Still, when Georgina Beers and Melmanette Worthington opened their travel agency in Waianae, they didn't cut corners on phones. They went to the GTE Hawaiian Tel Phone Mart Business Center and got the right system for the job.

"It's an investment that really paid off," says Georgina. "The system saves us plenty of effort with hands-free operation, speed dialing, call forwarding and so on. And with our ads pulling in more calls than we ever dreamed of, it's nice to know that this system will grow with us for a long time to come.



"It's also nice to know that GTE Hawaiian Tel is there to take care of any problems.

"Phone Mart Business Center sold us the system, showed us how to use it, set up installation and service—everything," says Georgina. "Going there was a good move."

"I'd go along with that," Melmanette agrees. "In fact, I think everyone here would."

320 Ward Avenue (Ward Court). Hours: Monday thru Friday, 9 a.m. to 5 p.m. Telephone: 546-4747

GTE Hawaiian Tel
PHONE MART
Business Center

Sensei

A docent and a *sensei* to many who have become *sensei* in their own right is Dr Ilza Veith. Her article on the "Parallels between AIDS, Leprosy and Syphillis" is a feature of this issue of the *Journal*; it is based on a lecture she gave at the Hawaii Medical Library on 28 June 1991. She is the Professor *Emerita*, History of Health Sciences and Psychiatry, UC-San Francisco.

Dr Veith, 77, was a visitor to Hawaii in mid-June and was honored by a reception arranged by John Breinich at the Hawaii Medical Library on 19 June.

Veith can be addressed as "Doctor" because she has not only a doctorate in medical history from Johns Hopkins School of Medicine, but she was also tendered the honor in Japan of *Itagaku Hase*, or Doctor of Medical Science, a title superior to that of a simple MD. However, she has never been a practicing physician, although she started out to be one.

She was born in Ludwigshafen-am-Rhein in Germany, decided to become a physician, headed for schools in Geneva and then Vienna in the 1930s. She married a physician, Hans von Valentini, before receiving her degree, and he did not feel it was right for a doctor's wife to be a physician, too. Consequently, she attended cooking school!

The couple avoided the Nazi *Anschluss* by coming to the United States in 1937. She earned her PhD at Johns Hopkins in the History of Medicine—the first student ever to receive that degree—under the tutelage of Professor Sigerist. Her doctoral thesis required her to learn Mandarin Chinese, which she did by learning the use of 500 characters at the end of one year. The thesis became the subject of her first of 8 books that she has since written: *The Yellow Emperor's Classic on Internal Medicine*; it has sold 50,000 copies, an unusual record because few doctoral theses see the light of day. Veith is very proud of the fact that she spent 15 years as a faculty member at the University of Chicago School of Medicine, which she considers to be one of the great institutions of this country. She later accepted an offer of the University of California, San Francisco, that set up a chair in the History of Medicine especially for her. It was at her feet that Hawaii's Charlie Judd Jr MD (now deceased these 5 years) developed such an interest in the history of medicine. He brought it back with him to our own medical school and inculcated appreciation of it to the students who have graduated from JABSOM.

Veith is now the victim of a hemiplegia that she suffered unexpectedly at the age of 50, but this has neither hampered her getting about—she has made trips all over the world to fulfill speaking engagements—nor has it kept her mind from being as sharp as ever. She has suffered additional tragedies as well: one was the loss of her husband a year ago after more than 50 years of marriage.

The other was an accidental fall and a leg fracture that led to Hawaii's good fortune, and perhaps also Ilza's, because it led to her developing a large number of friends and many visits here. It happened during a stopover in Honolulu on her way to Australia to speak. She was hospitalized at The Queen's Medical Center, under the care of Don Jones the attending orthopod, but more intimately acquainted with Resident Yoshio Oda MD; the late Harry Arnold Jr MD and many others also became her close friends. Of course, the planned trip was canceled.

However, Veith has a particular fondness for Japan, in particular Tokyo and Kyoto, which she has visited many times and for whose people she has a great fondness. She speaks Japanese, Chinese, German, French, English and even Russian "nimnoshko"—very little. How come? "Because it was a neighboring country to Germany; that's why!" she said, when asked the question.

Veith is the author of *Great Ideas in the History of Surgery, Can You Hear the Clapping of One Hand?, Art Is Medicine, Medizin in Tibet* (in German), *A Translation of the Earliest Medical Book, Ishimpo* (2 volumes) and *Hysteria: The History of a Disease* (in addition to the *Yellow Emperor*). She is, of course, listed in *Who's Who*.

Many of her friends came to greet Ilza Veith at the Hawaii Medical Library, and it was an honor for your editor to be able to meet this *sensei* of all *sensei* — a teacher of physicians.

J I Frederick Reppun MD
Editor

ERRATUM

A real gremlin, this time! We can't find it; not at the HMA where the *Journal's* sharp-eyed proofreaders Susanne and Jan thought it was added by ye editor, whose handwriting they thought it was (it wasn't!).

David Elpern's piece on *Iniki* in the October issue ended with a poem by G.M. Hopkins but ...

The gremlin added to the ending five lines from P.B. Shelley's "Oxymandius!"

Mea culpa.

The editor

■

Can you get all of these discounted banking services?

Personal Checking Plan

Free checking for a year.

First 200 checks free.

TellerPhone® Home Banking and Automatic Bill Payment

Use free of charge for a year.

Reduced Rate Financing

We'll also waive the annual fee on our Gold MasterCard® and Visa® for the first year.

Discounted Credit Card Merchant Services

Special discount rates for credit card processing.

Asset Management and Financial Planning

Free consultation for personal estate planning.

20% fee reduction for the first year on First Hawaiian's exclusive Investment Monitor Account.℠

And a second opinion, too?

Your Own Personal Banker

Your personal banker is just a phone call away to help you make all the right business and personal banking decisions, and to assist you with your transactions.

Yes you can.

Now you can enjoy a special program of financial services created exclusively for the members of the Hawaii Medical Association by First Hawaiian Bank. You'll also have the added expertise of a personal banker who will assist you with all of your banking needs.

To find out how you can take advantage of these benefits, simply call Mark Taylor at 525-8824 during normal business hours. Members on the neighbor islands, please call collect.

First Hawaiian Bank

Parallels between AIDS, Leprosy and Syphilis*

Ilza Veith PhD, Dr Med Sci

Most American tourists on their trips to Europe spend much time sightseeing and visiting museums, castles, and antique churches. However, few of these tourists are so observant as to notice that in many medieval churches the outside walls are not constructed of solid stone, but have built in or incised at irregular intervals narrow slits at the height of the heads of children and fairly short adults. The slits in the church walls were made deliberately in order to give persons who were not permitted to enter the church the opportunity to stand outside during the church service and thus to attend the religious services from a distance.

The people who were generally condemned to this uncomfortable participation in the religious ceremony were those who had been diagnosed as lepers, because since biblical times it had always been assumed that leprosy was a highly contagious disease and easily transmitted from person to person by casual contact or meaningless proximity. Hence, the mere presence of a person diagnosed as a leper in a church pew was considered very dangerous to all present at the service.

The cause of this unfortunate tradition was the *Bible*, namely a Book of the Old Testament. Best known and most influential was "Leviticus XII and XIII," which describe the tasks of the Hebrew priests who were in charge of inspecting all inhabitants for the possibility of being carriers of leprosy. After the examination, the Levites continued to be in charge of the inspection and treatment of the lepers and of the subsequent disposition of those persons who had been diagnosed as having this illness. Then they became *Aussatzige*, as they were designated in German, ie, persons set apart; or—according to the *Bible*—they were suffering from *Zara'at*. The precise meaning of the Hebrew word has never been literally established. Hippocrates is said to have translated *Zara'at* as leprosy, or, rather, as scaly, and, therefore, it also may have been psoriasis, seborrhea or pityriasis. Literally translated from Hebrew, *Zara'at* means a blow or a stroke, and thus indicates how the disease was taken very seriously.

The Levites had no medical training; nevertheless, they were in charge of the conduct exhibited by the population and filled the role of a type of "health police." The frequent use of the word "unclean" does not necessarily mean unwashed as in dirty clothing, but it did mean an ugly, discoloration or acne-like skin eruption, a rash, scabs, and perhaps even also a strawberry birthmark.

The story of the leper squints[1], ie, the slits in the medieval church walls which served to keep the lepers out of church and gave them uncomfortable and little access to the religious services, as is altogether the history of leprosy. It cannot help but remind us of the much briefer history of AIDS (Acquired Immune Deficiency Syndrome), the existence of which is of unknown duration, and the virus of which was first isolated in 1983 by Luc Montagnier in the Pasteur Institute in Paris and confirmed in 1984 in the United States by Robert Gallo and colleagues in the National Cancer Institute (there was dispute about who really found the virus first). Like leprosy, AIDS leaves the patient particularly vulnerable to supervening infections. The virus that causes AIDS is known as HIV (Human Immune Deficiency Virus). This virus kills certain cells in the immune system and thus the body of the AIDS patient is left powerless to fight off the infections that surround us at all times, and the patient eventually dies.

In many respects, the sudden appearance of AIDS bears much resemblance to that of the onset of syphilis in the late 15th century, at the time of the return of Columbus from his voyages to the New World. It was a frightening event, an incredibly rapid and extensive spread of a new disease that inflicted various stages of one illness upon the patient. It took some time for both patients and doctors to realize that the various forms of syphilis were actually one and the same disease, not too dissimilar from the understanding of AIDS, where the beginning often is Kaposi's Sarcoma. It was a frightening symptom that had been known to the Western World from observations in the African and Haitian populations long before, but the significance of which had not been recognized. And again, as in AIDS, where the just-named sarcoma gradually gives way to bronchopneumonia, a fatal protozoan pneumonia known as *Pneumocystis carinii,* which eventually brings on death.

As in syphilis, the cause and mode of transmission of AIDS were initially entirely unknown; in syphilis it took many decades until the pious societies of Christian Europe and Colonial North America recognized and admitted the sexual transmission of this new disease, which was considered sinful by many. There were a number of physicians who were reluctant to treat syphilis patients.

Oddly enough, AIDS, which has the same mode of transmission as syphilis, gradually acquired a new and different name. With the disappearance of the word "venery" from traditional daily language, all diseases transmitted through sexual intercourse, such as AIDS, the various forms of Herpes simplex, and Herpes of the external genitalia, are now described as "venereal" diseases, and more delicately as "sexually transmitted diseases." While this is generally applied to AIDS, other modes of its transmission have also been recognized. Blood transfusion was recognized early as a probable cause of AIDS, for which reason hemophiliacs who are in frequent need of transfused blood were in constant danger of infection with AIDS through the injection of

(Continued on page 302) ➤

* Based on a lecture given in Honolulu on July 28, 1991, at the Hawaii Medical Library in connection with The Queen's Medical Center and the University of Hawaii John A. Burns School of Medicine.

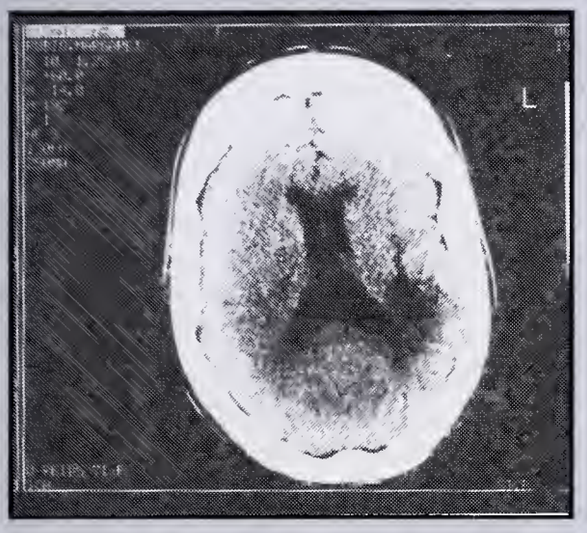
** Professor *emerita,* History of Health Sciences and Psychiatry, University of California, San Franciscisco.

Received for publication January 8, 1992

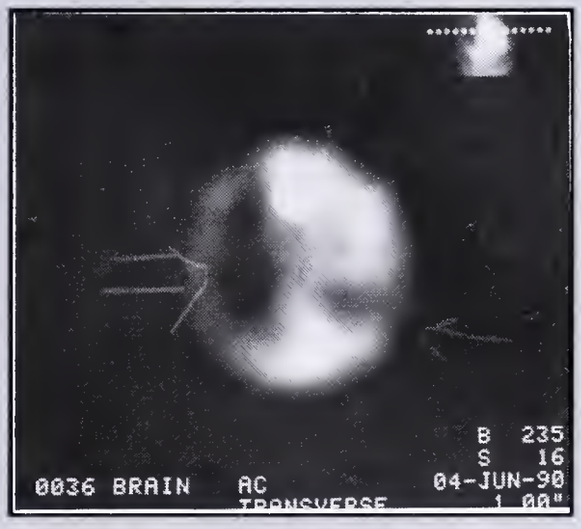
NUCLEAR MEDICINE TEACHING FILE

Technetium HMPAO SPECT Brain Imaging

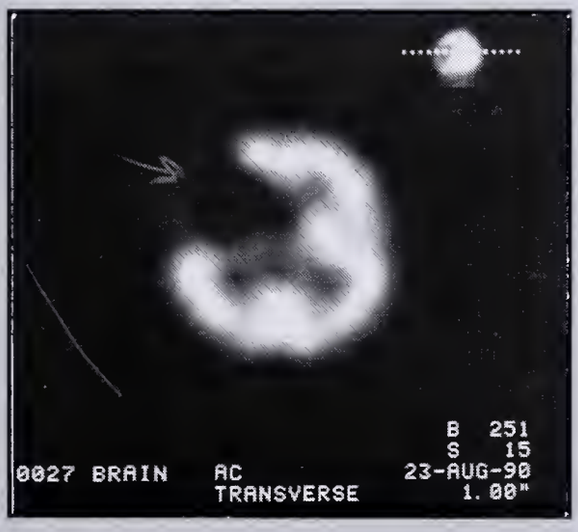
Tc-HMPAO crosses the intact blood-brain barrier and is incorporated into metabolically active brain cells in proportion to blood flow. Brain imaging with Tc-HMPAO can demonstrate cerebral infarction immediately after the acute event, well before CT changes are evident.



1. CT study in this 71 year old female shows a small infarct of indeterminate age in the left parietal lobe.



2. HMPAOP
O scan on the same day shows a large right middle cerebral artery infarct (large arrow) in addition to the left parietal lobe infarct small arrow).



3. Transaxial view showing an infarct of the right frontal lobe and right basal ganglia in this 70 year old female with left sided weakness and confusion.



4. Coronal view in the same patient.

Nuclear Medicine — Non-invasive, physiologic imaging

PACIFIC RADIOPHARMACY, LTD.

A JOINT VENTURE OF
QUEEN'S MEDICAL CENTER, KUAKINI, SAINT FRANCIS,
STRAUB AND THE HONOLULU MEDICAL GROUP.

this blood, unless it was thoroughly checked for HIV as it is now.

Just as lepers became *Aussatzige* (persons set apart from the human community), so AIDS patients have often been excluded from normal activities and gatherings of healthy people. Thus, a few children—hemophiliacs particularly—who had contracted AIDS through blood transfusions, have been excluded from school attendance.

More frequent is the acquisition of AIDS by drug addicts who use soiled needles and syringes that carry the AIDS virus; they unknowingly inject the dread disease into themselves. Whereas the sexual transmission of AIDS was originally associated with homosexuality only, and because of this sexual deviation, the patients chose to live apart from society; the other patient group who had acquired this disease through their drug addiction was equally set apart from law-abiding society.

Just as nowadays no easily accessible cure for AIDS has as yet been discovered, so neither leprosy nor syphilis could be treated and cured until the 20th century when chemotherapy and antibiotics became available.

In the medical approach to and treatment of the patient suffering from the diseases mentioned in this essay, there is yet one other important similarity: such patients who were suffering from diseases they had inflicted upon themselves in a presumably sinful or careless manner were frequently very far from welcomed, if not rejected, by the medical profession.

Perhaps the most explicit but tentative rejection of syphilitic patients can be found in the earliest American medical book ever published, known as *The Angel of Bethesda*[2]. It was written by Cotton Mather (1663-1728), who became infamous through his participation in the witch trials in Salem, Massachussetts but whom Dr. Richard Shryoch described as the "first significant figure in American medicine." Mather was primarily a clergyman, but he also had read the entire available medical literature of that time, so that he was fully conversant with the practice of medicine. In fact, far in advance of his time, Mather was deeply interested in the subject of preventive medicine and participated in a broadly conceived project of introducing inoculation against smallpox in the Boston area.

He was even aware of the nutritional causes of various diseases, thus he engaged in a rational discussion on the cause of scurvy. Mather strongly advised against a diet largely consisting of salt meats, as had been customary on long sea voyages. He also advised the generous use of citrus fruits and juices. In doing the latter, he demonstrated his familiarity with the use by the British Navy begun sometime earlier to provide citrus fruits for sailors who were consequently known as "limeys" to prevent scurvy.

But, to return to Cotton Mather's writings on syphilis, he was fully aware of its mode of transmission, thoroughly critical of it, and quite uncertain whether it was proper for him, a clergyman, to accept syphilitic patients in his practice. The following are his words on syphilis as quoted from *The Angel of Bethesda*:

"As for my remedies unto this foul disease—you are so offensive to me, I'll do nothing for you, you shall pay for your cure."

This payment for the cure did not mean that the patient had to pay money, although that may have been the case also, but that the patient was to undergo a most unpleasant treatment by being sent to a surgeon. Mather referred here in all probability to the mercury treatment which had come to European and to American medicine from the Arabian pharmacy, where it was used for the treatment of all skin eruptions and rashes, thus also at times for syphilitic skin eruptions. The side effects of mercury were unpleasant, inasmuch as they lead to super-abundant salivation and the loosening and loss of teeth. Mather addressed himself to the patient:

"Gett ye gone to the Chirurgeon!" [who was to give him a medicine which] "will keep you in torment for 3 days and, when made a thorough cure—then sin no more! Don't return to Folly anymore. If you do ... I have no more to say to you."

Even though the treatment of syphilis did not involve the use of surgical instruments, it is interesting the custom arose that prescribed such patients be treated by surgeons and not by general practitioners or internists.

Although it was generally known by the medical profession and the public at large that syphilis was a sexually transmitted disease, it did not seem to occur to anyone that simple casual contact with a syphilitic patient could convey a danger of contagion.

The biblical prescriptions for the conduct and treatment of lepers, as they were documented in "Leviticus XIII," were in force with almost complete exactitude until the first half of the present century, when medications to treat leprosy were discovered.

By then the fear of lepers had gradually abated because most people had become aware that in reality the contagiousness of leprosy was not as acute as had been feared for centuries; in fact it required protracted cohabitation and intimate contact for it to be transmitted from a patient to a healthy individual.

So far as AIDS is concerned, patients with the disease have been feared and treated not unlike lepers in biblical antiquity. AIDS has recently been freed from exaggerated fear since an editorial in the *New England Journal of Medicine* found its way to the following newspaper headline, "AIDS 'clearly' not spread casually." This headline is derived from the following text in the same journal: "Now that doctors have clear evidence AIDS isn't caught through casual contact, they should play a more active part in 'quelling the hysteria' over transmission of the deadly disease..."

"'The picture is . . . clear,' Dr. Merle A. Sande wrote in an editorial in a recent issue of the same journal. 'The AIDS virus is spread sexually, by the injection of contaminated blood, and vertically from mother to fetus. Other modes of transmission are extremely rare'."

On the whole, contagion was a phenomenon not feared much in early medicine. Even Hippocrates was not aware of it, although he described a clear case of contagion in his book *Epidemics*:

"In Thasus, early in spring ... many had swellings beside the ears, either on one or both sides, in most cases without fever, and not necessitating confinement to bed; some, however, were a little heated. In all cases these swellings subsided without giving trouble, and none went on to suppuration as do those from other causes. In character they were flabby, large, diffuse, without inflammation or pain; in all cases they disappeared without a sign. These conditions occurred in youths, young men, and adults; *mostly in such as took exercise in the wrestling schools and gymnasia: but they seldom attacked women.* Many had dry coughs without expectoration and hoarseness in speaking. Not long after, but in some cases a considerable time later, painful inflammation

(Continued on page 304) ➤

Listen to your heart.

Sandra called me on the way to work to remind me about our family dinner tonight.

Emily left a message on my AMS: 'I love you, Daddy.'

I called her back and said, 'I love you, too.'

Nothing feels better than keeping in touch.

Island-wide coverage. Personalized service. And more cellular options to meet your communication needs. At Honolulu Cellular, we know phones aren't just for business any more. Because some things are too important to lose touch with.

Discover the communication choice you can depend on.

Only at Honolulu Cellular.



We feature state-of-the-art cellular phones by Motorola.



Honolulu Cellular

Hawaii's Cellular Leader

1161 Kapiolani Boulevard / 545-4765 • Grosvenor Center, 737 Bishop Street / 528-6161 • 98-1238 Kaahumanu Street, Suite 100 / 487-CELL

occurred in one or both testicles; fever in some cases, in others not. The condition was as a rule very troublesome. In other respects they had no illnesses requiring medical attention."[3]

Since the word or concept of contagion had not come into existence in the days of Hippocrates, the significance of the distribution of the disease he was describing eluded him. The disease (mumps) occurred in youths, young men, and adults, mostly in those who took exercise in the wrestling schools and gymnasia. However, the disease seldom attacked women

In later years when the concept of contagion was generally accepted, any physician's attention would have been arrested by the fact that the unnamed disease befell only male patients and rarely any women. Those youths and young men who visited wrestling schools and gymnasia performed their exercises in considerable physical intimacy, which facilitated the transmission of the disease. Women were not admitted to these institutions; therefore, they were not exposed to the mumps epidemic and rarely contracted the disease.

Awareness of contagion as such arose in the 14th century in connection with the various waves of plague that appeared in 2 forms: bubonic and pulmonary. Because of the appearance of numerous subcutaneous hemorrhages or petechiae, which made the patient appear dark-skinned, the plague soon became known as the Black Death. Since the various outbreaks of this fearful disease generally coincided with the arrival of ships from the East, most frequently the Levant (East Mediterranean), some extremely observant and innovative persons introduced a mandatory waiting period of 30 or 40 days before the newly arrived ships could unload their freight or the passengers be allowed to go on land. This waiting period, best known as *trentina*, for the original 30-day waiting period, was found to be insufficient. It was first established in Ragusa, now known as Dubrovnik in Croatia in southwest Yugoslavia on the Adriatic Sea.

The first truly modern biological concepts of contagion entered medical thinking only with the earliest graphic statement on its existence. This came into being amazingly late, if we consider the clear disease pictures of the earlier days. After all, Hippocrates' description of mumps contained a clear picture of a contagious disease. The first scientific statement of contagion was pronounced by Girolino Fracastoro (1478-1553)[4], a true Renaissance personality who was at the same time a physician, a poet, a physicist, an astronomer and a pathologist. He is best known for his medical poem on syphilis, "Syphilis sive morbus gallicus" (Verona, 1530). In this poem he coined the name of the disease after the legendary shepherd Syphilus and stressed its venereal cause. More important, however, is his treatise on contagion published in 1546. Here is the first unqualified statement concerning the existence of microorganisms *(seminaria contagionum)*, capable of reproduction in appropriate media. To be sure, Fracastoro did not think of these imperceptible particles, whose existence he divined but could not prove, as living organisms *(contagia animata);* but we must consider that his work was done as early as 1530 and without the help of a microscope. In fact, this was centuries before the instrument was invented. When we consider that Fracastoro worked solely on the basis of logical deduction, we must read in awed admiration his definition of contagion:

"If we allow ourselves to sketch a sort of tentative definition of contagion, we shall define it as: A certain precisely similar corruption which develops in the substance of a combination, passes from one thing to another, and is originally caused by infection of the imperceptible particle."

With the appearance of the concept of contagion in the writings of medicine, definite parallels can be observed in the 3 diseases: AIDS, leprosy and syphilis, with the one difference that there are different modes and degrees of severity of contagiousness. Keeping sufferers of this or that disease from attending church by having them remain outside and follow the religious ceremonies through narrow slits in the wall of the church is evidently an unnecessary or, as Dr. Hande stated in the *New England Journal of Medicine*, "An hysterical reaction of exaggerated fear."

REFERENCES

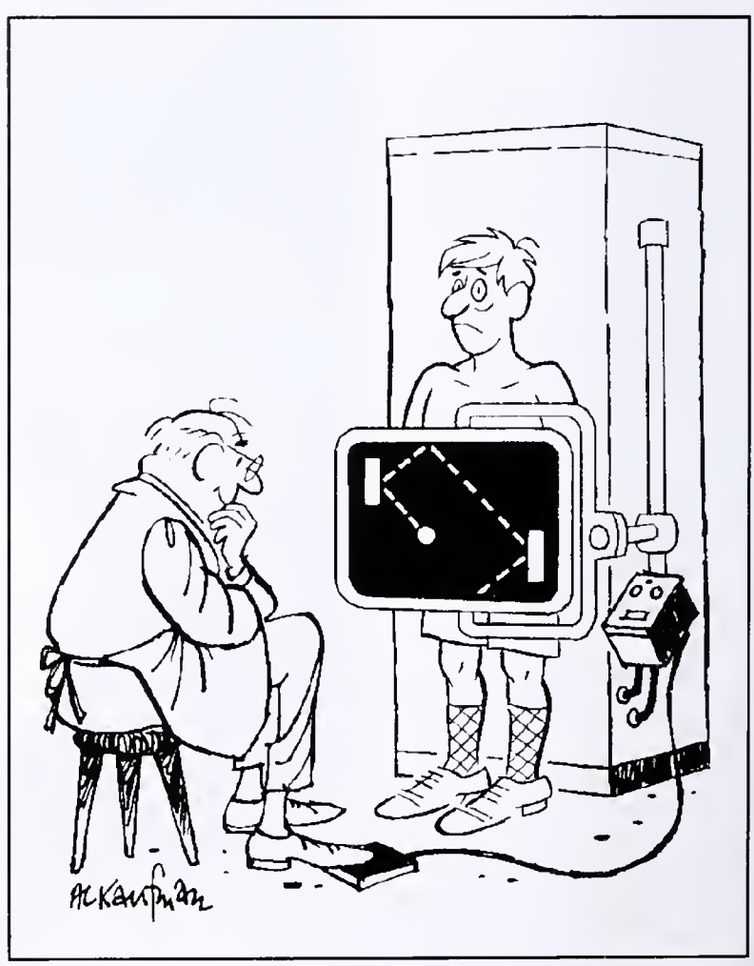
1.Weymouth A. *Through the Leper Squint: A Study of Leprosy from pre-Christian Times to the Present Day.* London, England: Selwyn & Blount, Paternoster House, Paternoster Row; 1938;71-73.

2. Beall OR Jr and Shryoch H. *Cotton Mather: First Significant Figure in American Medicine.* Baltimore, Maryland: The Johns Hopkins University Press; 1954.

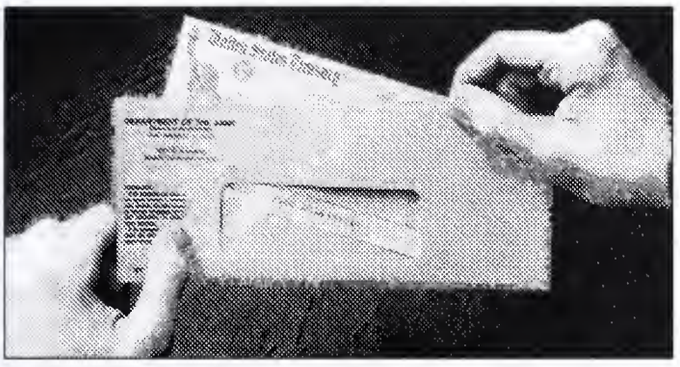
3. *The Genuine Works of Hippocrates*, translated from Greek with preliminary discourse and annotations by Francis Adams. New York, NY: William Wood & Company; 1929.

4. Fracastorii H. *De Contagione et Contagiosis Morbiset eorum Curatione,* Libri III. Translation and notes by Wilmer Cave Wright. New York, NY: Putnam;1930; 7-43.

■



WE'LL HELP YOU PAY OFF $20,000 OF YOUR MEDICAL SCHOOL LOANS.



If you're certified in one of the following specialities:
■ anesthesiology ■ thoracic surgery ■ vascular surgery ■ general surgery ■ orthopedic/surgery ■ neurosurgery ■ plastic surgery
you could take part in the Army Reserve's Health Professionals' Loan Repayment Program that pays as much as $20,000 in medical school loans.

As a member of the Army Reserve, you could be serving your country near home at times convenient to you. You'll also enjoy all the prestige and privileges that accompany being an officer.

To find out more about the Health Professionals' Loan Repayment Program and all the other advantages of the Army Reserve, contact one of our experienced Army Reserve Medical Counselors. They can arrange for you to talk to an Army Reserve physician and visit a Reserve Center or medical facility.

Call: 1-800-USA-ARMY

BE ALL YOU CAN BE.®

ARMY RESERVE

CONFERENCE CONNECTIONS

Put your meeting on the line with our new teleconference service.



- New, state-of-the art equipment and technology
- Quality voice transmission
- 24-hours a day Operator service
- Worldwide coverage
- Full range of conference services
- New Meet-Me call in conference service
- Operator Dial-Out service to most locations

A teleconference is easy as picking up your phone.
Call 643-CONF (643-2663) for information and reservations.

GTE Hawaiian Tel

Beyond the call

Gestational Diabetes in a Rural Setting

Joseph W Humphry MD*
Jan Kadohiro MPH CDE**
Christina Olinghouse MPH+
A S Hartwell MD

Women who are already diabetic and become pregnant, as well as women who develop gestational diabetes, have increased risks of complications to both fetus and mother. These risks in gestational diabetes mellitus (GDM) can be reduced to near that of a non-diabetic mother by normalizing the blood sugar. The current recommended standards are reviewed. Utilizing a team approach, care was provided to patients with GDM in a rural primary care setting in order to attempt to normalize the blood sugar to the recommended level. Review of the outcomes of these pregnancies supports the conclusion that acceptable care for patients with GDM can be provided away from the tertiary care centers and in the primary care setting.

Understanding the pathophysiology of diabetes in pregnancy has influenced the therapeutic intervention, especially in regard to blood glucose control. This paper reviews current recommendations regarding the treatment of these patients and the application of these standards to our patient population. Our data support the contention that acceptable outcome of pregnancy in diabetes can be obtained in settings other than tertiary care health centers.

Maternal hormonal changes during the second and third trimester cause insulin resistance, glucose intolerance, and gestational diabetes in approximately 3% of all pregnancies[1]. The later months of a normal pregnancy are associated with a lowering of the fasting blood sugar. The fetus, exposed transplacentally to elevated blood sugar levels, but lacking maternal insulin which does not cross the placenta, produces increased insulin which accounts for some of the changes in fetal development seen in gestational diabetes and pregnant diabetic patients[2,3]. Even mild elevations in maternal sugar appear to have significant influence on fetal growth.

Fetal survival rates of less than 50% were recorded in pregnant patients with Type I diabetes in the 1930s before the introduction of insulin therapy[3,4]. After the introduction of insulin therapy, improved care increased fetal survival to over 95% and markedly reduced complications of pregnancy.

The risk posed by diabetes to the outcome of pregnancy is further delineated in subsets based on the duration of the diabetes and secondary complications (retinopathy, nephropathy, neuropathy and cardiovascular disease) by the White Classification[5]. In the first trimester, women with diabetes have a significantly increased risk for spontaneous abortions[6,7] and a 3-fold increase in the incidence of major congenital anomalies. These women also experience a more rapid progression of secondary complications of diabetes.

There is a lower incidence of the later complications of pregnancy in GDM patients than in patients established with diabetes. Complications include a high incidence of in-utero death, prematurity, delayed lung maturation, macrosomia and associated birth trauma, neonatal hypoglycemia (30% to 50%), hypocalcemia (50%) and hyperbilirubemia[1]. Preliminary, long-term outcome studies indicate the offspring of mothers with diabetes frequently have major problems with obesity during adolescence and a marked increase in the likelihood of developing diabetes.

Women with gestational diabetes have a 25% to 60% risk of eventually developing overt diabetes[8,9,10,11].

As reported by a number of investigators[11,12], prompt identification of gestational diabetes and appropriate intervention in order to normalize the blood sugar to that of the non-diabetic population reduces the maternal and fetal complication rate to near normal. In patients with known diabetes who are of childbearing age, prepregnancy counseling and diabetic control reduces the rate of spontaneous abortions and congenital abnormalities[6,7,13].

Screening for gestational diabetes should be done for all pregnant women between the 24th and 28th week; earlier screening should be done in the case of patients who have increased risk factors such as previous gestational diabetes, previous birth of a large baby, strong family history of diabetes, obesity and advanced maternal age[1,12]. A definitive diagnosis is established by a 3-hour glucose tolerance test. The diagnosis is based on laboratory values; symptoms are rare unless marked glucose intolerance is present.

Maternal glucose control in both the gestational diabetic and the pregnant diabetic patient should parallel that of a normal pregnancy, with fasting glucose values maintained between 60 to 90 mg% and 2-hour post-prandial glucose below 120 mg%. Normal weight gain should be stressed. Most patients with GDM require strict dietary compliance, but those who fail to do so need prompt treatment with insulin. Oral hypoglycemic medication is not recommended in pregnancy because the fetal response to maternal hyperglycemia is to increase its own insulin production. Glycosylated hemoglobin levels reflect tight control, with levels above the mid-range of normal being unacceptable[14].

Such standards are clearly met in research centers and large medical centers with selected populations. Many patients do not have access to these large, specialized centers. We have adopted these guidelines within our practice and had opportunity to do a retrospective review of our experience over an 18-month period. The successful outcome supports the value of continuing care in

(Continued on page 308) ➤

* Assistant Clinical Professor of Medicine,
John A. Burns School of Medicine, University of Hawaii

** Department of Health

\+ School of Public Health, the University of Hawaii

Received for publication October 1, 1991.

You'll love working with our locum tenens physicians and allied health care professionals.

WE GUARANTEE IT.

CompHealth has thoroughly credentialed physicians and allied health care providers from more than 40 fields of specialization available to provide locum tenens, or temporary, staffing assistance when and where you need it.

Plus, we have the standards and experience to guarantee your satisfaction each time we place a member of our medical staff in your practice or facility. It's the closest thing you'll find to a risk-free way to cover for absent staff members, "try out" a potential new recruit, or take care of your patients while you search for a new full-time associate.

Call us today to arrange for quality locum tenens coverage, or to discuss your permanent recruiting needs.

CompHealth

COMPREHENSIVE HEALTH CARE STAFFING

1-800-453-3030

Salt Lake City ■ Atlanta ■ Grand Rapids, Mich.



RUN A SPECIAL PRACTICE.

Today's Air Force has special opportunities for qualified physicians and physician specialists. To pursue medical excellence without the overhead of a private practice, talk to an Air Force medical program manager about the quality lifestyle, quality benefits and 30 days of vacation with pay each year that are part of a medical career with the Air Force. Discover how special an Air Force practice can be. Call

USAF HEALTH PROFESSIONS
TOLL FREE
1-800-423-USAF

AIR FORCE

a primary care setting for these high-risk patients and provides guidelines for further improvement in medical care.

Methodology

The Waianae Coast Comprehensive Health Center (WCCHC) is a community health center serving a rural Oahu population of approximately 43,000 people. There were an estimated 400 deliveries a year managed through the WCCHC during the study period; however, not all patients received prenatal care. The physician group at the Center is multispecialty with primary care, specifically prenatal care, provided by family practitioners and/or nurse practitioners in conjunction with a Honolulu-based obstetrical group at a tertiary facility—the Kapiolani Medical Center for Women & Children (KMCWC).

All patients coming in for routine prenatal care are screened for diabetes at the 24th and 28th week of pregnancy by a venous glucose determination l-hour after ingestion of a 50 gm glucose drink. High-risk patients (obesity, personal or family history of diabetes, a history of macrosomia, stillbirth, or congenital anomalies) are routinely screened earlier than 24 weeks. Those patients who test abnormal on screening for glucose intolerance undergo a standard 3-hour glucose tolerance test using a 100 gm oral glucose load to make a definitive diagnosis.

Patients with prior diabetes who have become pregnant and those who have gestational diabetes are referred to a general internist at the Center for medical management and to the Center's Nutrition Department for individualized diet counseling. Much of the education and coordination of care is provided by one office nurse who works with the internist.

In the current study, charts of all 17 patients with pregestational and gestational diabetes over an 18-month period (January 1989 to June 1990) were reviewed by an objective outsider. The analysis was limited to 12 patients who had complete records.

Results

Out of 17 patients, 16 had live births recorded. Four cases were excluded because of inadeqate information in the charts; 2 of these were excluded because of very limited information regarding delivery; one had only a single, late, third trimester prenatal visit prior to delivery, and the other changed providers due to a change in insurance plans. The following results are based on the 12 patients with GDM who had complete information in the chart (Table 1). All patients delivered at term with a mean gestational age of 39.25 weeks. None of the infants was heavier than 4500 gm but there were 5 who weighed between 4000 gm and 4500 gms. The average weight of the 12 infants was 3709 gm (8 lbs 3 oz). The average maternity weight gain during pregnancy was 27 lbs with a range from 9 lbs to 97 lbs. The pregravid weight was self-reported and not verified by an actual measurement. The mean weight of the mothers at delivery was 205 lbs.

Table 1: Patients with Gestational Diabetes

	Age	Reported Pregravid Weight (lbs)	Delivery Weight (lbs)	Gestational Age (in Weeks)	Birth Weight (in Grams)
1	33	185	219	40	3881
2	37	259	286	40	4275
3	34	190	201	40	4022
4	24	129	161	38	4163
5	30	156	156	37	2600
6	28	246	272	40	4303
7	31	250	261	40	3347
8	32	110	154	40	3572
9	35	148	143	38	3966
10	22	180	203	37	2788
11	22	151	248	40	4359
12	32	150	161	41	3234
Mean Average	30	180	205	39.25	3709

Seven of the 12 deliveries were by C-section. Two of the C-sections were due to suspected macrosomia one of which was precipitated by evidence of fetal distress during early labor; the other was done electively. One C-section was due to suspected chorioamnionitis and the other 4 were repeat C-sections.

Ten women were multiparous, accounting for 28 previous pregnancies, 20 live births, 6 abortions and 2 cases of fetal demise. One of these was stillborn with congenital abnormalities and the other was one twin born very prematurely.

Four out of 12 women smoked cigarettes and 11 used alcohol at the time of the initial prenatal interview. Two patients continued to smoke up to the time of delivery. The average maternal age was 30 years with 8 of the 12 over 30 years of age.

Five patients required insulin to obtain desired blood glucose control, whereas the rest were controlled by diet. One patient was admitted to hospital for control of diabetes and subsequently developed premature contractions requiring a 28-day stay. Three other patients accounted for 4 pre-term admissions for premature contractions of 1 to 2 days each. One woman had severe idiopathic thrombocytopenic purpura in the first trimester requiring continued steroid treatment throughout the rest of the pregnancy; this undoubtedly weakened her glucose intolerance.

None of the patients had significant postpartum problems requiring extended hospitalization. All 12 offspring left the hospital with their mothers. Mild hypoglycemia corrected by appropriate feeding was noted in 2 infants. There was a transient mild drop in the platelet count in the infant of the patient with ITP. There were no other problems noted in the hospital course of the infants. All 12 had 5 minute apgar scores of 9.

Discussion

Our study, while very limited in scope, does demonstrate the safety of predominantly community-based care for these high-risk patients. The results indicate that patients with GDM followed at the WCCHC carry to term and deliver healthy babies. Five infants were over 4000 gm and would be considered macrosomic. Four of the macrosomic infants were delivered by C-section, 2 because of a previous C-section and 2 due to suspected macrosomia. There were no infants heavier than 4500 gm, which is considered by some to indicate macrosomia[2].

Of the 22 preceding pregnancies in the study population which carried beyond 30 weeks, 2 (9%) ended in stillbirth. This population, as a group, had multiple risk factors in addition to diabetes. Obesity was present in a majority of the patients with an average delivery weight of 205 lbs. Eight out of 12 were over 30 years old, which is considerably older than our average obstetric

patient. Nine of the 16 patients were Hawaiian or part Hawaiian, reflective of the ethnicity of the Waianae Coast population. Smoking and the use of alcohol were inherent habits in several of the patients at the time of the initial prenatal visit. Counseling about smoking in terms of the increased risk to the pregnancy resulted in compliance with the health-education message in 3 out of 4. One patient had ITP with a fall in the platelet count to 1000 shortly after presenting with petechiae in her first trimester, as aforementioned.

The earlier practice of delivering diabetic patients prior to term in order to avoid fetal demise has been replaced over the past decade by close monitoring of these women in the third trimester[15]. C-section is required at the first sign of any fetal distress. The 58% (7 of 12) C-section rate in our study population is clearly much higher than that for a normal population. However, further analysis shows that 4 were repeat C-sections and one was an emergency section.

Effective care of patients with diabetes and pregnancy takes time and teamwork. In our rural setting, a limited number of providers are involved in the patient's care. No written protocol or formal program is developed specifically for these women. A coordinated effort and a common understanding of the standards of care, as well as individual care plans was achieved by the Health Center team. The cornerstone of the care plan is timely nutritional intervention and the availability of providers for teaching and medication adjustment. Patients requiring insulin are seen by the nurse daily until home glucose monitoring and insulin administration are learned. Daily or twice daily phone contact with the internists allows for rapid control of the diabetes without hospitalization. Insulin needs are dynamic during the pregnancy, often requiring frequent adjustments, which is usually accomplished by phone. Pre-term monitoring of the pregnancy is done through outpatient service at the KMCWC.

Even though patient care at the WCCHC is entirely managed by primary care providers, significant support through informal education and direction is being provided by specialists at KMCWC and an endocrinologist interested in gestational diabetes. The support of these specialists has been valuable in the care of these patients.

As in any practice setting, the chart review process reveals problems with certain patients where management could have been improved. Dietary compliance is a concern in the case of many patients. Frequent physician contact is required for insulin adjustment. Accurate and complete charting is mandatory. Interdepartmental communication problems need to be resolved.

A number of patients from the Waianae area receive little or no prenatal care and are missed in the screening for gestational diabetes as a consequence.

Finally, there is considerable interest being focused on the incidence of gestational diabetes in the Waianae population and in other predominantly Hawaiian populations. The incidence can be accurately calculated only if one knows for certain that all patients are screened; this was not possible in the present study. It is our impression that the incidence of gestational diabetes is not much higher than the approximately 3% national average.

Conclusion

Our results support the conclusion that pregnant patients with GDM can be managed in a primary care setting. To provide the best chance for a healthy infant to be delivered, very tight control must be maintained throughout the pregnancy. The care of diabetes, both pregestational and gestational, requires considerable time and effort to provide effective patient education, to monitor, to adjust treatment throughout the pregnancy and to obtain good patient compliance.

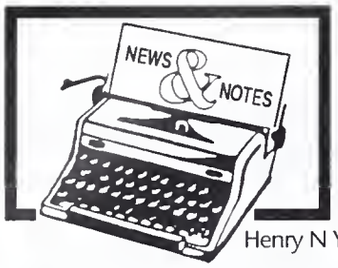
The study has relevance in the whole State of Hawaii where tertiary obstetric care is centered only in Honolulu, distant from rural Oahu and from the Neighbor Islands. The tertiary-care specialist is an essential member of the health care team in providing informal consultations and education for the primary care providers as well as the management of the occasional patient who will have complex obstetric problems.

Care of the mother and infant does not stop with a normal or successful delivery. Because of the increased risk for development of overt diabetes, women with gestational diabetes who are overweight should receive counseling in weight control. Both mother and offspring should be screened for diabetes when there are any suggestive symptoms.

REFERENCES

1. Dickinson J, Palmer S. Gestational diabetes: pathophysiology and diagnosis. *Semin Perinatol.* 1990 Feb;14 (1): 2-11.
2. Marshall R. Infant of the diabetic mother: a neonatologist's view. *Clin Diabetes.* 1990: 8;48-57.
3. Meyer B, Palmer S. Pregestational diabetes. *Semin Perinatol.* 1990 Feb; 14:12-23.
4. Coustan D. Pregnancy in Diabetic Women. Editorial: *N Engl J Med.* 1988 Dec 22; 319:1663-1665, 19(25): 1663-5.
5. Berk AB, Miodovnik M, Mimouni F. Impact of pregnancy on complications of insulin-dependent diabetes mellitus. *Am J Perinatol.* 1988 Oct.;5:359-367.
6. Mills J, Simpson J, Driscoll S, et. al. Incidence of spontaneous abortions among normal women and insulin-dependent diabetic women whose pregnancies were identified within 21 days of conception. *N Engl J Med.* 1988 Dec 22, 319:1617-1625.
7. Miodovnik M, Mimouni F, Siddigi T, et. al. Periconception metabolic status and risk for spontaneous abortion in insulin-dependent diabetic pregnancies. *Am J Perinatal.* Oct 1988;5:368-373.
8. Gabbe S. Large-for-gestational-age infants and glycemic control in women with GDM. *Clin Diabetes.* 1990;8:61.
9. American Diabetes Association, Inc. *Physician's guide to non-insulin dependent (Type II) diabetes: diagnosis and treatment.* Second Edition. 1988; pp.6.
10. Pettitt D J, Bennett P.H. Long-term outcome of infants of diabetic mothers. *"Diabetes Mellitus in Pregnancy Principles and Practice".* New York, Churchill Livingstone, Inc., 1988, pp. 559-556.
11. Metzger B, Freinkel N. Diabetes and pregnancy: metabolic changes and management. *Clin Diabetes.* 1990;8:1-9.
12. Abrams R, Coustan D. Gestational diabetes update. *Clin Diabetes.* 1990;8:17-24.
13. Kitzmiller, J L, Gavin, L A, G D et. al. *Preconception Care of Diabetes.* Feb 13 1991, *JAMA* Vol 265: 731-736.
14. Tamborlane WV, Amiel S A. Insulin treatment of the pregnant woman with insulin dependent diabetes. *Diabetes Mellitus in Pregnancy Principles and Practice.* New York, Churchill Livingstone Inc. 1988, pp. 278.
15. Landon M, Gabbe S. Antepartum fetal surveillance and delivery timing in pregnancies. *Clin Diabetes.* 1990;8:33-46.

■



Henry N Yokoyama MD

Honored, elected and appointed

Our congratulations to the newly installed HMA officers: president Jeanette Chang; president-elect Andrew Don; secretary John Spangler and treasurer Fred Holschuh. And our gratitude to past president Stephen Wallach for a difficult job well done . . .

At Kuakini Medical Center, Melvyn Kaneshiro was reelected chief of staff, Maxwell Urata was reelected to assistant chief of staff, and Mark Kuge secretary. Takuji Hayashi was honored posthumously as Physician of the Year.

Mark Chun was installed chair of the Nuuanu YMCA for 1992-93; Richard Kelley is vice chair of the Hawaii Business Round Table.

Life in these parts

Retired Honolulu surgeon Paul Gebauer claims he has discovered a cure for the common cold . . . or at least a way to mitigate its symptoms. "The key to stopping a cold is to kill off the unfriendly viruses before the inflammation sets in...At the first sign of a cold, dissolve half a teaspoon of iodized table salt in a glass of 5 ounces of water. Then stick your nose into the solution and inhale briskly, sniffing a small mouthful of saltwater into your throat, and then spitting it out. Keep sniffing and spitting until your nostrils feel clear. You can repeat the whole treatment three to four hours later . . . The ancient Hawaiians prescribed an ocean dip for colds. This is much the same thing. There's no need to suffer with a cold." *Honolulu Magazine* Sep '92.

Personal glimpses

The Tattoo Remover

"She had a bandage on her arm for 22 years. Her husband never saw what was underneath. 'A former lover's name,' says dermatologist Norm Goldstein (who later removed the patient's tattoo). (Gleaned from *Private Club* Jan/Feb '92)

"Norm, a clinical dermatologist, is a member of the Plaza Club in Honolulu...For the past 28 years he has written books and articles on tattoos, amassed the largest collection of slides and literature in the world, and his research has led to reforms within the tattoo industry."

Miscellany

(Contributed by our favorite Editor, J.I.F. Reppun who gleaned the following from "Kukui O Pohai Nani" Sep '92)

"A man, writing his family history, discovered that his great great great grandfather had died in the electric chair. Undaunted, he wrote: 'Our great great great grandfather, Willis, occupied the Chair of Electricity in a State Institution.'"

Written examples of children's insight into the *Bible* have a charm all their own. Here are some favorites:

• Holy acrimony is another name for marriage.

• Christians can have only one wife. This is called monotony.

Professional moves

August: Urologist Robert Carlisle associated with John Edwards Jr of Urology Clinic Inc; gastroentcrologist Darrell Lee opened at Pali Momi Medical Office Bldg Ste 40; OB Gyn Raydeen Busse joined William Fong at Kapiolani Medical Center POB Ste 990; internist Malcolm Haruno joined George Druger at Queens POB II Ste 704; and Neurology Associates, at 321 N Kuakini announced the retirement of Michael Okihiro and the association of David Kaku with Melvin Yee.

September: Internist David Saito relocated to Pali Momi Medical Office Bldg Ste 350; orthopod Stephen Naruto relocated to Aiea Medical Bldg; OB Gyn Jane Service and Barbara Kitashima relocated to Kapiolani Medical Center POB Ste 510; and nephrologist David Ono associated with Richard Shim and Aaron Nada who have offices at Professional Plaza of the Pacific, Pali Momi Medical Center and Kailua Professional Bldg.

October: Internist Timothy Ahu opened at Pali Momi Medical Office Bldg Ste 570; and anesthesiologists Michael Hee and Stanton Lum joined the Physician's Anesthesia Service Inc at

WE KNOW THE ISLANDS...
AND WE KNOW ISLANDERS...

You've come to expect our kid-glove service—and we're proud of servicing Hawaii for over twenty-four years.

- Professionally Planned Office Moves
- Inter-island Household Moves
- Mainland and International
- Storage—Personal and Business

Large or small, we're your best friends when it comes to moving and storage.

M. dyer & sons, inc.
MOVING STORAGE
We're Right Here. Your Kamaaina Movers.
456-4200
For moves from the continental U.S. to Hawaii call Dyer International, Inc. 1 800 932-9955



Medford and Masu Dyer

PUC 137C ICC MC133909

Kuakini Medical Plaza Ste 306 which includes Edwin Ichiriu, Gilbert Korenaga, Neil Manago and Reid Manago.

Quotables

Re Konishiki, our 550 pound sumo wrestler . . .

"Watching him is something like seeing an elephant in diapers doing a polka . .

Many Japanese are horrified that a foreigner has become the "No 1 belly bopper in their ancient sport." Mike Royko in his "Windy City" column, carried in the *Advertiser.*"

Robert McAfee jokes . . .

"I was one of nine children . . . I didn't sleep alone until I got married."

"There was a big flood in Maine. Two men were marooned on a rooftop . . . They watched a derby hat float by, stop suddenly 50 feet downstream, make a 180 degree turn and come upstream on its own. When it reached the house, it again floated downstream. Then it occurred to one of the men, 'Oh, that's Uncle Lem . . . He vowed come hell or high water he was gonna mow the lawn this weekend.'"

"Weary but happy, 3 physicians and a lawyer were back at camp after a successful day of duck hunting. First the English doctor poured himself a whiskey and toasted, 'Long Live the Queen!' He threw his glass in the air and blasted it with his shotgun.

"Next, the French doctor brought out a flask of cognac . . . 'Vive la France!' He downed the drink and blasted the flask with his shotgun.

"The American doctor produced a can of Milwaukee beer. He gave a silent toast, took his shotgun and blasted the American lawyer. 'It can't get any better than this!' he exclaimed." (Robert McAfee jokes as heard by Myron Shirasu at the HMA House of Delegates)

Lecture notes

"Pharmacotherapeutics in Asthma" was the topic for a lecture by visiting professor Leslie Hendeles, Pharm D from University of Florida.

Asthma deaths have increased in the past 12 years . . . especially among black adolescent males . . . Treatment of asthma costs $4-million a year, 2/3 going to ER and hospitalization costs . . . The NIH Asthma Program is focused on the treatment of acute asthma especially to prevent the need for ER and hospital visits . . .

Asthma is an inflammatory disease of the airways rather than an infection; therefore, corticosteroids are the drug of choice . . . But during an acute exacerbation, beta agonists are used first . . .

The problem with beta agonists: Overuse leads to risk of death . . . The physician should limit the use of beta agonists to 1 canister a month on the prescription. We tend to overuse because of the quick relief . . . and this delays the use of corticosteroids . . .

Early use of corticosteroids results in more effective use of bronchodilators by increasing their sensitivity . . .

Measure lung function with the peak

(Continued on page 312) ➤



flowmeter . . . It results in better patient compliance. We can set guidelines for patients to call the physician or go to the ER. The use of peak flowmeter at home can reduce the frequency of ER visits, the frequency of hospitalizations . . . Result is a more cost-effective treatment.

Prednisone therapy: 40 mg Prednisone can peak in 9 hours and wear off after 12 hours. Give 40 mg twice daily for 7 to 10 days.

Taper Prednisone? No need to. Use inhaled corticosteroids if goal is to prevent exacerbation.

Eosinophilia is reduced with corticosteroids, but not with beta agonists.

Comparison of beclomethasone and cromolyn: Beclomethasone dose is twice daily while cromolyn is four times a day...

Adolescent problem: Noncompliance. If taste is problem (Aerobid), switch preparations.

Spacer device: Less dysphonia and better deposition if dry.

"No free lunch" ie inhaled corticosteroids have systemic effect: Affects bone formation. Postmenopausal women not on estrogen therapy can develop osteoporosis. May affect growth in growing children.

Inhaled steroids more effective than oral steroids . . .

Reduce nocturnal asthma with inhaled corticosteroids and slow release theophylline.

Pharmacologic management:
a beta agonists
b. theophylline
c. cromolyn
d. corticosteroids
e. anticholinergics

Prednisone therapy in children: No effect on growth when limited to 5-day courses of prednisone once a month up to 4 times a year . . . Prednisone therapy in pregnancy not contraindicated—even in the first trimester.

Oncology Dialogue

An 85-year-old blind, diabetic man with right hydronephrosis developed frequency, hematuria and urgency. Urologist Bill Shiraki first saw him in Nov '91 for his first episode of gross hematuria. An IVP was then normal. An EKG showed an old anterior MI. The man again had gross hematuria in Feb and intermittent gross hematuria after June. A CT scan showed irregular thickening of the left bladder wall . . . In Sept, the man had surgery for a common duct stone, but refused treatment for his bladder tumor. A repeat CT scan in Sept showed further extension of the bladder tumor and a presacral mass as well . . . Biopsy of the bladder tumor finally was done and pathologist Larry McCarthy with his usual inimitable enthusiasm called it "a grade 3 or 4 poorly differentiated transitional cell Ca . . ." Bill, when queried about the possibility of a rectal extension of the neoplasm replied "He has good BMs . . . In fact that's about the only good part of his life."

Moderator Ken Sumida summarized the problem. "Here's an 85-year-old, blind, diabetic man with Ca of the bladder with extension to the rectum or another primary in the rectum. What do we do next?" Radiotherapist Lois Mastrofrancesca suggested a chest X-ray before anything else. Ken asked oncologist Jonathan Cho, "Should the therapy be therapeutic or palliative?" Jonathan opted for palliative treatment . . . Ken turned to radiotherapist Ed Quinlan, "Ed, how about palliative radiation?" Ed was practical, "There's an old saw: 'If you don't know what you are treating, you won't do any good.' I'd like to know what's there in the rectum." Radiologist Howard Arimoto suggested, "We can biopsy transrectally or peritoneally." But pathologist *emeritus* Grant Stemmerman declared. "The issue is palliation and the primary effort should be to keep him comfortable. The more diagnostic procedures, the more discomfort . . . The fewer diagnostic efforts, the better for the patient." In the final analysis, Bill declared he would do an ileo-conduit and the radiotherapists decided on palliative radiation. . .

A 46-year-old oriental woman has metastatic Ca to the liver . . . Oncologist Gordon Nakano elucidated: "She presents a diagnostic and therapeutic problem. The patient has a long history of diabetes mellitus, hypertension and has been on dialysis for the past 4 years . . . Two years ago, she had bilateral mastectomy for intraductal Ca. A month ago, she started itching and became jaundiced. Ultrasound and CT scans showed liver masses which on percutaneous biopsy was Ca . . . Her bilirubin is in the 3 to 4 range and her CEA is 125 with normal alpha fetal protein. . . "

Radiologist Domm Kumasaka showed CT scans with diffuse hepatomas and a Lt pelvic mass (either sigmoid or ovarian) . . . Pathologist Larry McCarthy reviewed the liver biopsies and breast slides with the intraductal Ca . . .

Cancer surgeon Scott Hundahl summarized his thoughts about the case: "I suspect a colon primary . . . She should have colonoscopy with biopsy. The question is what to do for her. Even with the metastatic liver disease, I would consider resection of the colon lesion which would extend her survival . . . Then follow with 5 FU with Leucovoran or any 5 FU dejur you choose . . . Prognosis in renal failure with dialysis alone is 50% 5-year survival . . . with her diabetes, PVD and other conditions, her survival will be even less. Diagnosis is easy with colonoscopy and at most laparoscopy . . . The treatment is the hard question . . . "

Pathologist Grant Stemmerman, lately on a hereditary cancer kick, added, "With multicentric tumors of the breast and colon or ovary, you have to consider Hereditary Polyposis. This will be a tough problem for the pathologist. It is difficult to determine whether an ovarian tumor is primary or metastatic . . . So the report from Larry

MEDICLAIM BILLING SERVICES

INCREASE YOUR CASHFLOW

GET YOUR $'s
IN 18 DAYS OR LESS.

Our Billing Service Center can quickly get any backlog under control.

Electronic Claims Submissions can be done for as little as $2.00 per claim.

PHONE 261-4086 TODAY

(Larry McCarthy who reports tissue pathology) will be equivocal . . . "

Gordon reported: "Just to make things more complicated, she had her toe run over by a wheelchair and developed cellulitis." (Murphy's Law: "If anything can go wrong, it will.")

Jokes we thought funny

At an exclusive country club that enforces strict adherence to club rules, a regular saw a new golfer place his ball 6 inches in front of the tee marker. The regular rushed over and confronted the man. "Sir, I don't know whether you happen to be a guest or a member, but our rules are very strict about placing your tee at or behind the markers before driving the ball."

The new golfer looked the stickler right in the eye. "First, I am a guest, not a member of this club," he said. "Second, I don't care about your rules. And third, this is my second shot." (From PB *Party Jokes* Nov '92)

A retiree was given his first set of golf clubs and decided to try them out. "The game is a complete mystery to me," he told the club pro. "What do I do?" "You hit the ball toward the green." The novice teed up smacked the ball straight down the fairway and onto the green, where it stopped an inch from the hole. "What now?" the fellow asked the stunned pro. "You're supposed to hit the ball into the cup." "Oh, great! Now you tell me!" (Also a PB *Party Joke* Aug '92)

Hilo PHN Patsy Matsuura puns: "Why did the Siamese twins move to London?"

"So the other can drive, too."

Dennis Meyer's witticism . . .

It was nigh tax time and the doctor pondered whether to get the services of a bookkeeper, an accountant or a tax attorney . . . He drew 2 vertical lines on a blank sheet of paper and showed it to a bookkeeper. "What do those lines mean to you?" The bookkeeper said, "It looks like the number 11." He showed it to an accountant who elucidated, "It could be the number 11 or a Roman numeral II." The tax accountant walked around pondering the matter. He placed his hand on the doctors shoulder, looked him straight in the eye and quizzed, "What do **you** want it to mean?"

■

Next time you feed your face, think about your heart.

Go easy on your heart and start cutting back on foods that are high in saturated fat and cholesterol. The change'll do you good.



American Heart Association
WE'RE FIGHTING FOR YOUR LIFE

"CHART gave me back my life."

Cindy Stone, a van delivery driver, suffered a herniated disc that left her in intense pain – and out of work for 2-1/2 years.

During that 2-1/2 year period, Cindy had surgery, passive therapy, and then was referred to CHART for active physical rehabilitation. It was a long, slow process, but progress was steady, and Cindy's strength and endurance gradually increased.

Cindy has been back on the job for a year. She's doing just fine, and she occasionally stops by to see her friends at CHART.

"On a scale of 1 to 10, I give CHART a 10," Cindy says. "I was impressed with CHART's treatment of the entire body and their emotional support. In fact, CHART gave me back my life."



CHART®
Comprehensive Health and Active Rehabilitation Training

Honolulu - 841-6006
Waipahu - 671-1711

Maka O Ke Kauka

Russell T Stodd MD

Good girls keep diaries—bad girls never have the time.

In Virginia, a female doctor was arrested on suspicion of DUI. She allegedly screamed obscenities at the arresting officer and tried to kick him in the groin. When she failed the sobriety breath test, she kicked over the breathalyzer table. Subsequently she was found innocent of wrongdoing due to PMS. Hey, what about RTS (raging testosterone syndrome)?

Whatever hits the fan will not be distributed evenly.

According to current data, do you wonder how you are doing relative to the rest of the medical field? Average physician income (all fields) for 1991 in the west was $132,020, for ophthalmologists $139,850. For the past 3 years, only 4 areas of practice have kept up or exceeded the cost of living, all surgical fields—thoracic, neuro, general, and orthopedic. All other specialties (save guess which one), show a slight gain, but not equivalent to the COL, and ophthalmology?? Hang on to your annuities—average earnings **dropped** 121% from 1989. As for overhead, in the period 1988 to 1992, median weekly salary for full-time office employees increased 131.3%. Nurses scored the biggest jump of 36% to an average weekly salary of $502. The average annual outlay for benefits per employee (pension, insurance, bonuses, vacation, holidays) have increased by 69% since 1988—growing from $1549 to $2611! It is easy to see that if one extrapolates from these data, by the year 2010, ophthalmologists will be earning less than bag ladies.

Bureaucracy ultimately becomes a government of bullies.

Our Federal government with its chronic promise-all-but-underfund habit wants to save Medicare dollars. Current plan? Blame the pharmaceutical manufacturers, and instruct Congress to pass legislation requiring them to supply drugs to the VA, Medicaid and Public Health Service at a 25% discount. If a major customer gets 25% off the going rate, then won't the other consumers be obliged to pay higher prices to offset the difference?

Never dare to judge until you have heard the other side.

If you are laboring under the apprehension that an intelligent judge would provide you a better chance of success in a malpractice case, guess again. According to the *Cornell Law Review*, exactly 50% of malpractice cases were won by the plaintiff when tried before a judge, while only 29% were successful when tried by a jury. Additionally, the study dispelled the notion that judges grant higher awards—judges average award was $1.44-million, juries average award $1.4-million.

If facts do not conform to the theory, they must be disposed of.

Part of the outrageous downgrading of the RBRVS conversion factor, engineered by Gail Wilensky, PhD while she was in charge of HCFA, was the "behavioral offset" of 10%. The unsupported assumption is that physicians will increase their workloads to maintain their incomes. And a review of medicare payment data show that physician services did increase, but only by 5%—exactly half of projections. Theoretically, based on the formula set in law, the lower-than-projected increase in growth should mean that physicians will get a large update in calendar year 1994—the Medicare economic index plus 5%. Don't hold your breath. After the HCFA actuaries finish cooking the numbers, the data will probably look just the opposite.

If you think the problem is bad now, just wait until they've solved it.

Despite scores of disastrous examples around the world, politicians and economists continue to deceive themselves and the electorate that govemment agencies can sensibly administrate health care. Legislatures around our nation are displaying increasing interest in the establishment of "health care authorities," such as a council, commission or sovereignty to manage medical care. This has already occurred in at least one state with other state legislatures toying with the concept. In Hawaii we had the **Governor's Blue Ribbon Panel** which was established (and now disbanded) to provide medical reform recommendations to the governor. It is not difficult to visualize the panel being expanded to a permanent status with ongoing function of micro-managing medical practice and reimbursement. We should all stay alert and challenge this fallacious perception at every turn.

A politician will promise to build a bridge even when there is no river.

Example—Governor Jones of Kentucky survived a helicopter accident and said "God must have a plan for us." (How's that for hubris?) Apparently, God's plan would include establishing a **health care authority** with sweeping power to manipulate global medical fees, apply a special tax to doctors and hospitals, and control factors that directly impact the practice of medicine. The Kentucky Medical Association is opposed.

A wise man is strong. A man of knowledge increases his strength.

Nice guy, ophthalmologist Bill Filante was always interested in politics in the olden-golden days 30+ years ago at LA County Hospital. For the past 20 years or so, he has served in the California legislature while the rest of us have been plowing medical ground. This year he embarked for a seat in Congress, but fate has struck in the form of a brain tumor. After surgery and therapy he is continuing the campaign. Good luck, Bill. We need you.

Addenda

▲ Lead me not into temptation; I can find the way by myself.

Aloha and keep the faith.

rts

■

CLASSIFIED NOTICES

To place a Classified Notice, MEMBERS, please send typewritten ad to HMA office.
Nonmembers, please call Leilani at 521-0021, 4 line min., approx. 5 words per line. Payment must accompany order.

BUSINESS OPPORTUNITY

MEDICAL CLINIC FOR SALE
Internal medicine primary care practice. Located at the Aiea Medical Bldg. Fully equipped & fully furn. Estab. 15 yrs. 25 patients/day, 3 exam rms., consultation rm., business/billing office, recep. area, complete in-office lab. Office approx. 950 sf. Terms negotiable. Serious inquiries & offers call: 528-2102; 622-7611 or write Medical Clinic, PO Box 2167, Hon., HI 96805.

EMPLOYMENT OPPORTUNITY

ALOHA MEDICAL CONSULTANTS
Positions available 6 MDs: Internists/Ob/Ortho/Occ. Health+; Charge RNs and RPTs. Kathryn Beavin 941-1551.

FP/GP
For Maui resort medical office. Send CV to Dr. Ben Azman, West Maui Healthcare Center, Kaanapali, Hawaii 96761 or phone 1-808-667-9721.

CRUISE HAWAII—Primary care physicians needed to staff cruise ships (SS Independence, SS Constitution). One week cruise minimum. ACLS required. Please contact Acute Care Medical Services 262-4181. Neighbor Islands place call 1-800-788-4181.

HAWAII. Family Practioner with OB skills and internal medicine practitioner needed for rural underserved area. Full-time position in non-profit community health clinic. Desire dedicated person to work in multicultural setting. Contact Puanani Kalawa, Waianae Coast Comprehensive Health Center, 86-260 Farrington Hwy., Waianae, HI 96792. Ph. (808) 696-7081.

FOR SALE

QBC Blood Analyzer
Automated CBCs utilizing buffy coat analysis of a tiny capillary tube blood sample. State-of-the-art. Printer included. Purchased 5 months ago for $11,300 and rarely used. Transferrable warranty. $8,000 complete. Contact Marika at 831-3000.

TREADMILL UNIT
Adjustable speed and angle treadmill. Functional but old. EKG unit is outdated and not functioning but may be repairable. $100. Contact Marika at 831-3000.

PEDRATRIC AUDIOMETERY/VISION TESTING-1. Maico 12 audiometer earphone frequence 250-8000 cps. 2. Titmus II vision tester, slides for standard testing, preschool, color preception, and illiterate testing included. Both for $350. Available after December 31, 1992. Call 947-3781.

CLINIC EQUIPMENT SALE
2 med exam tables w/stirrups, 2 Maico audiometers, Titmus vision tester, new Ricoh FAX 280 OL, Ricoh copier FT 4460, 2 treatment tables, phys-therapy equip., incl. 2 Chattanooga Co. computerized traction machines, electric Hi-Lo traction table w/Saunders unit for cervical Tx, wall-mount cervical traction unit, 10 pack Chattanooga Co. hydrocollar tank, ultrasound machine, 8 Scan-

(Continued on page 316) ➤

SHERATON MAKAHA RESORT AND COUNTRY CLUB



THE KAMAAINA
"WHOLE IN ONE"
$85*
ROOM AND GOLF PACKAGE

Now you can play 18 holes of Oahu's most challenging golf (with a 74 USGA rating) at Sheraton Makaha West Course. Then relax and spend the night in our peaceful, country-club atmosphere. All at a special little "Whole in One" rate.

Just $85 per person, per night, Sundays thru Thursdays. $95 per person, per night on weekends. Play an additional round on the same day at a special rate (space available).

For "Whole in One" reservations call Sheraton Makaha at 695-9511.

* Per person, per night. Based on double occupancy. For a limited time only, subject to space availability. Single golfer rates also available. Rates do not include applicable state taxes. Proof of Hawaii residency required.

Sheraton Makaha
RESORT & COUNTRY CLUB
OAHU
ITT Sheraton

" Finally, a Business Hotel in Downtown Honolulu !"

Suites

$95-$150

EXECUTIVE CENTRE

1088 Bishop Street
Honolulu, Hawaii 96813
539-3000

TRUITT AFRICA



LEE TRUITT OFFERS OVER 150 PHOTOGRAPHIC ADVENTURE SAFARIS TO AFRICA FOR AS LITTLE AS $430 PLUS AIR!



PACIFIC-AFRICAN CONNECTION

33 S. KING #406 HONOLULU, HI 96813 PH. (808) 524-5453 • FAX 599-1024

CLASSIFIED NOTICES

design-type wait. room chairs, 4 secr. chairs, 8 and 6-shelf filing cabinets, treadmill, Burdick EK-5A EKG machine. Office equip. and supplies, etc. Also Welch-Allyn wall-mount Oto-Ophthalmoscope set and other equip. Write to: 930 Kaheka St. #1704, Hon., HI 96814 or call 943-8778.

COULTER COUNTER BLOOD DILUTER Electrolyte machine and other lab equip/supplies. Call 523-5623.

OFFICES

TLC MEDICAL CENTER—Has spaces available for lease and time share. 1650 Liliha Street Call: 941-6996

AMBULATORY SURGERY CENTER FOR SALE OR LEASE. Located in a medical office building. Fully equipped and furnished. Terms negotiable. Call 538-6622; or write to: Ambulatory Surgery Center, 1520 Liliha St., Suite 601, Hon., HI 96817.

KUAKINI MEDICAL PLAZA OFFICE Will sublease. Terms negotiable. Ph. 524-5225 or answering service 988-2188.

KAILUA AND/OR KAHALA Equipped medical offices available to share. Medical buildings, excellent reference source. 266-0066.

HAWAII KAI MEDICAL BLDG. 781 sq. ft. or 1,562 sq. ft. office sublease at attractive rents. Vahe Kenadjian (R) 735-0179. McCormack Properties, Ltd. 539-9600.

SPORTS MEDICINE AND ORTHOPEDIC SURGICAL PRACTICE willing to share office space at Queen's POB-1 and Pali Momi POB location, complete staff, managerial system, radiology and physical therapy services avail. Contact Diane Fong at 536-4992 M-W-F or at 487-7231 T & TH.

INTERNIST WILLING TO SHARE OFFICE SPACE in two locations—St. Francis MOB and Aiea. Interested physicians call Jon Won, 536-6988.

POSITIONS WANTED

COLO-RECTAL SURGEON—46 yrs old, Cleveland Clinic trained. 11 yrs. exper. Board-certified general & colo-rectal surgery. FACS, FASCRS. Seeking group or clinic association. (808) 723-3261.

AVAIL. FOR LOCUM TENENS—A caring, board-certified, long-time Hawaii physician. Available days or weeks. Call Mary Glover MD, 668-7337.

INTERNIST AND/OR MEDICAL ONCOLOGIST—needed to join active practice. This is an excellent opportunity to develop a busy practice in a short period of time. Please call 244-7627, Wailuku, Maui.

OFFICE SERVICES

LOWER YOUR OVERHEAD
Nice conf. rms. & offices available. Hourly and full time, receptionist, tele. ans. in YOUR name, much more, EXCELLENT IMAGE. Call HEADQUARTERS COMPANIES 522-9494.

SERVICES

MEDICAL BILLING SERVICES—Patient statements, insurance claims processing, accurate management reports. Personalized service, affordable monthly rates. Call MEDCON 247-0591.

LOCUM TENENS PROVIDED—Internal Medicine and family practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS AVAILABLE—Family practice, pediatrics, urgent care. No agency fees. Deal direct. 923-2981.

BOARD-CERTIFIED—anesthesiologist (licensed in Hawaii) available for temporary coverage, vacation or locum tenens work. (713) 341-9703.

REAL ESTATE

MAKIKI HEIGHTS—FEE SIMPLE 3 bdrm., 3 bath, POOL, ocean views. 528-0039. CHANEY BROOKS REALTY INC.

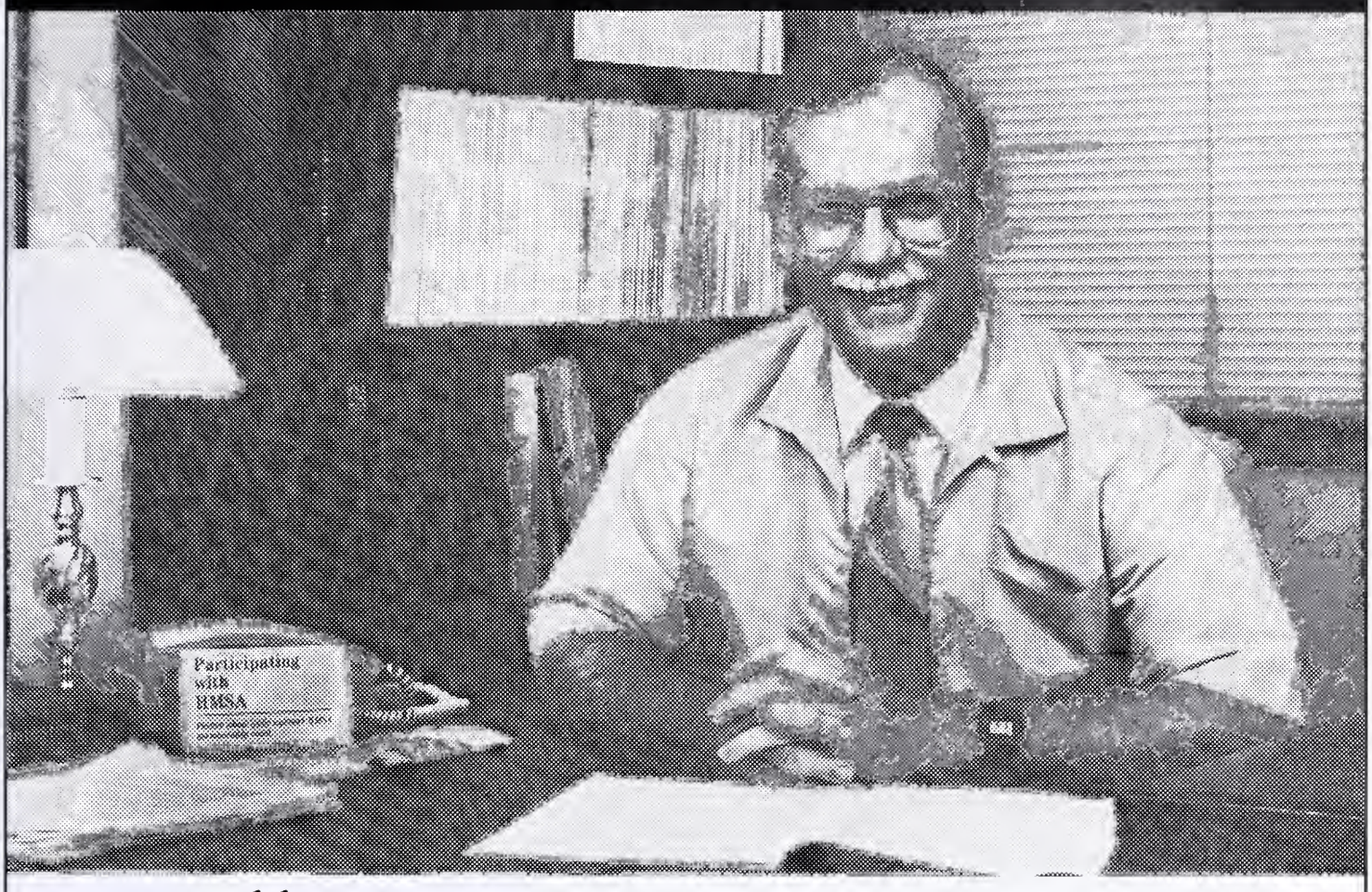
OFFICE FOR SALE

ESTABLISHED GENERAL PRACTICE in Waipahu for sale. Terms Negotiable. Call 671-3931.

PRACTICE FOR SALE—General Internist retiring in March 1993 after 34 years of active practice. South King Street near NBC Concert Hall. Good patients and reasonable terms. Call 538-7886.

A REAL BARGAIN—Closing branch office in Waipahu, willing to leave office improvements and furninture (chairs, exam. table, typewriter, refrig., copier, cabinets, phone, etc) for $3,000 or best offer. Call 523-9677, 521-8288 or 523-7955.

Why is Dr. William Hartman an HMSA Participating Provider ?



"It's the right decision for me and for my patients."

HMSA offers health care providers like Dr. Hartman, a gastroenterologist in Honolulu, some very good reasons for joining our Participating Provider Program. Reasons like the competitive advantage he has with access to our more than 600,000 members — 90% of whom choose Participating Providers. Or the payments that he receives directly and promptly from HMSA — that helps his cash flow and eases his administrative expenses.

Like Dr. Hartman, when you participate with HMSA, you can depend on our staff to provide courteous and professional service. And your patients benefit by knowing in advance what their out-of-pocket costs will be. They feel secure that you and HMSA are working together to keep those costs under control.

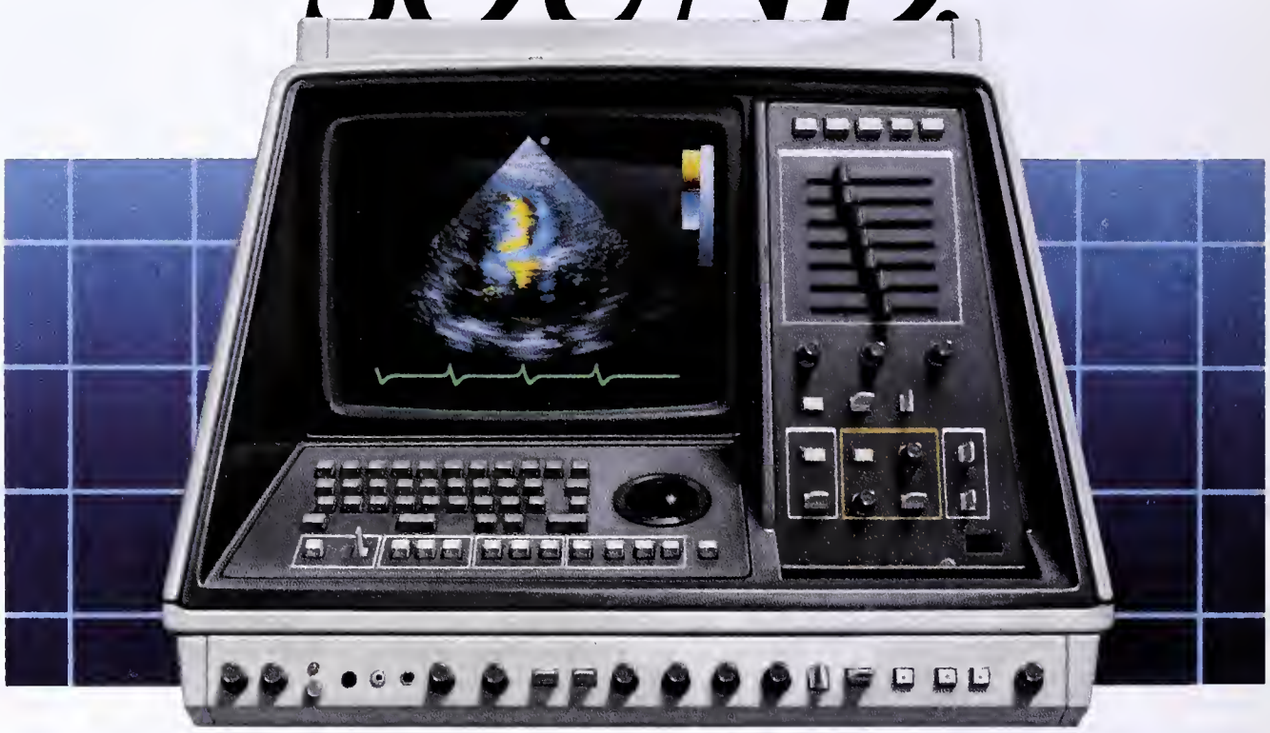
If you care about your patients' health care and its cost, being an HMSA Participating Provider makes sense. For more information on HMSA's Participating Provider Program, call 973-7700 on Oahu or your local HMSA office.

HMSA

Blue Cross
Blue Shield
of Hawaii

With you all the way.

THE LEASE THAT'S ULTRA SOUND.



To stay in sound financial health, many hospitals lease their equipment through Bancorp Leasing. To chart one—Straub Clinic and its new Cardiac Ultrasound Machine, a critical heart monitoring unit in Straub's state-of-the-art Cardiac Cath Lab.

The prognosis? Bancorp Leasing is doing well with its competitive rates, flexible terms, professional service.

Whether you need a $10,000 computer or diagnostic equipment a hundred times that, give Bancorp Leasing a call at 537-8810. On the Neighbor Islands, 1-800-451-6022.

Bancorp Leasing of Hawaii

DECEMBER 1992
Vol. 51, No. 12
ISSN: 0017-8594

Hawaii Medical Journal

Journals
W1
HA
968

Hawaii Medical Journal
UCSF LIBRARY
Received on: 03-25-93

CONTENTS

POEM: GRANDMOTHERS KNOW 321
Robert S Flowers MD

HMA COUNCIL HIGHLIGHTS 322

CORONARY ATHERECTOMY: REPORT OF THE FIRST EXPERIENCE IN HAWAII 324
Edward H Shen MD
Roy Chen MD
Roger Ashmore MD
Wesley Kai MD
Roger White MD
Niall Scully MD
Mark Grattan MD

NEONATAL SURVIVAL DURING A 2,500-MILE FLIGHT 332
H Scott Bjerke MD
Larry Barcliff RRT
Robert P Foglia MD

CLINICAL PATHOLOGIST'S EASY CHAIR 336
Francis H Fukunaga MD

MAKA O KE KAUKA 338
Russell T Stodd MD

CLASSIFIED NOTICES 339

HAWAII MEDICAL ASSOCIATION · 1856 ·

In 1992, MIEC's $18-million credits will reduce renewal premiums by an average 48%.

Since 1980, MIEC has authorized more than $62-million in such credits. We believe this is proportionately the largest credit by any physician-owned professional liability carrier. Credits result from lower than predicted claims costs.

The costs of MIEC's liability protection during the past decade were lower than predicted because of MIEC's:

- Financial strength, which adds more than $15-million in annual income from invested assets for the payment of claims and investment.
- Constant vigorous attention to loss prevention.
- Sophisticated governance and management of claims, underwriting and investments.
- Legislative vigilance.
- Successful application of tort reforms.
- Good luck.

Our actuaries now inform us that there is evidence of an increase in frequency of malpractice claims and suits. Average cost of suits continues to rise, driven by inflation, increased expectations and more large verdicts. If these factors continue, or if tort reforms are compromised by efforts of plaintiff attorneys, our claims costs will rise and premium credits will drop.

MIEC will strive to hold down the cost of quality coverage as we have done successfully since 1975. Our policyholders own a most successful professional liability insurance company.

Professional Liability Insurance Exclusively

Sponsored by Hawaii Medical Association

MIEC

Medical Insurance Exchange of California

6250 Claremont Avenue, Oakland, California 94618-1324
(510) 428-9411/Toll-free (800) 227-4527/Fax (510) 654-4634
Hawaii Claims Office, 1360 S. Beretania, Suite 405, Honolulu, Hawaii 96814 / 808-545-7231

Hawaii Medical Journal

(USPS 237-640)

Published Monthly for the
HAWAII MEDICAL ASSOCIATION
(Incorporated in 1856 under the Monarchy)
1360 South Beretania, Honolulu, Hawaii 96814
Ph. (808) 536-7702; FAX (808) 528-2376

EDITORS
Editor: J I FREDERICK REPPUN MD
Founding Editor: HARRY L ARNOLD JR MD
News Editor: HENRY N YOKOYAMA MD
Contributing Editors: RUSSELL T STODD MD, FRANCIS H FUKUNAGA MD
Editorial Assistant: SUSANNE WEEKS
Publisher: STEPHEN LENT

Editorial Board
NORMAN GOLDSTEIN MD
ROBERT T S JIM MD
JAMES LUMENG MD
FRANCIS D PIEN MD

Publications Committee
MYRON E SHIRASU MD (Commissioner)
HENRY N YOKOYAMA MD (Chair)
ERLAINE BELLO MD, STEPHEN R P K BRADY MD, NADINE BRUCE MD, NATHANIEL PH CHING MD, OSAMU FUKUYAMA MD, ROBERT C GALAGAN MD, FRED GILBERT JR MD, ROBERT HOLLISON MD, AMOD JAIN MD, ROBERT T S JIM MD, JOHN H C KIM MD, H LORRIN LAU MD, JAMES LUMENG MD, BAL RAJ MEHTA MD, FRANCIS PIEN MD, J I FREDERICK REPPUN MD, MYRON E SHIRASU MD, KIM THORBURN MD, RONALD J WONG MD, TERRY C Y WONG MD, GUY N YATSUSHIRO, JEANETTE H J CHANG MD

OFFICERS
President: JEANETTE H J CHANG MD
Past President: STEPHEN J WALLACH MD
President-elect: ANDREW DON MD
Treasurer: JOHN S SPANGLER MD
Secretary: FREDERICK C HOLSCHUH MD

County Presidents
Hawaii: RICHARD K M LEE-CHING MD
Honolulu: PAUL A DeMARE MD
Maui: LEONARD H SAKAI MD
West Hawaii: MINOLU R CHENG MD

Delegates to AMA
CALVIN C M KAM MD
RUSSELL T STODD MD

Alternate Delegates to AMA
JEANETTE H J CHANG MD
ALLAN R KUNIMOTO MD

Advertising Representatives
CROSSROADS PRESS, INC.
Post Office Box 833
Honolulu, Hawaii 96808
Phone (808) 521-0021

Pharmaceutical Advertising
STATE JOURNAL GROUP
711 South Boulevard
Oak Park, Illinois 60302
Phone (708) 383-8800

THE JOURNAL cannot be held responsible for opinions expressed in papers, discussions, communications, or advertisements. The advertising policy of the HAWAII MEDICAL JOURNAL is governed by the rules of the Council on Drugs of the American Medical Association. The right is reserved to reject material submitted for editorial or advertising columns. The HAWAII MEDICAL JOURNAL (USPS 237640) is published monthly by Crossroads Press, Inc., for the Hawaii Medical Association, 1360 South Beretania, Honolulu, Hawaii 96814. Second-class postage paid at Honolulu, Hawaii. Nonmember subscriptions are $25. POSTMASTER: Send address changes to the HAWAII MEDICAL JOURNAL, 1360 South Beretania, Honolulu, Hawaii 96814. Copyright 1992 by the Hawaii Medical Association. Printed in the U.S.A.

GRANDMOTHERS KNOW

A package arrived from Minnesota
Too large and fat to be a photo.
"Guess," my wife said, "At what is inside,"
And I thought of fruits which were beautifully dried.

"It's a brand new stocking, don't you know,
And it has a bell dangling from its toe.
It's knitted by Grandma . . . with a Santa face,
With a soft fuzzy beard in the proper place."

"How did she do that?" I ventured to ask,
Admiring the way she had accomplished her task.
I pointed to the beard of cashmere fluff
As if just a stocking would not be enough!

Filled with awe at her beautiful knitting
I wanted to try it for a personal fitting!
Once more when I asked how she managed the fluff
My wife said, "Grandmothers just know all that stuff!"

They make Christmas ornaments and pot holders, too,
And sweaters and afghans, just to mention a few.
They love to tell stories of when they were small
And will listen for hours to yours, but that's not all . . .

Grandmothers know how to heal up a hurt,
And know not to look when you're covered with dirt.
They bake in the kitchen for hours on hours,
Realizing that cookies have magical powers.

For some special reason they always understand,
And they love unconditionally without making demand.
They understand problems and know what's "enough,"
For Grandmothers just know that sort of stuff!

But Grandmothers' genre progressively expand,
And they often add a title—by popular demand.
The title of "great"—to go with Grandmother,
But it was there all along, and they needed no other.

So Grandmothers, we love you with all of your grace,
And that comes from all of us in the huge human race.
We say it without qualifying—without any guff-
But Grandmothers already know . . . all that stuff!

Robert S. Flowers MD
December 1, 1987

Happy Holidays

INTRAVENOUS
THERAPY SPECIALISTS

24-Hour Home Infusion Therapy Services
(808) 836-0365 or Physician's Exchange (808) 524-2575

Highlights of the HMA Council Meeting of November 20, 1992

The HMA Council met on 20 November 1992. The highlights of its action follow. Members present were: J Chang, A Don, F Holschuh, J Spangler, S Wallach, C Kam, R Stodd, P DeMare, B Shitamoto, R Lee-Ching, M Cheng, R Goodale, HKW Chinn, P Chinn, HH Chun, P Hellreich, S Hundahl, M Shirasu, C Kadooka, J Betwee, T Smith, G Goto, W Chang, N Winn, J Kim, A Kunimoto, J McDonnell; F Reppun, Editor, *HMJ*; Legal Counsel Vernon Woo; Auxiliary, Joyce Chuang; HMA Staff: J Won, B Kendro, J Asato and A Rogness (recording secretary).

The Council welcomed new Councilors Phil Hellreich, Patricia Chinn, and Kim Thorburn and heard the report of the Governor's Blue Ribbon Panel on Health Care Reform by John Kim and Chuck Kelley. The various recommendations for access to health care and cost containment will be submitted to the legislature. The HMA will follow this very closely.

The Council recognized the revival of the Tort Reform Subcommittee of the Legislative Committee, to become active in the coming year.

With respect to the recent death of a man with a dental abscess, the council adopted an HMA policy that states that regardless of the patient's insurance coverage or ability to pay, every physician must always see that emergency medical care is offered or is available.

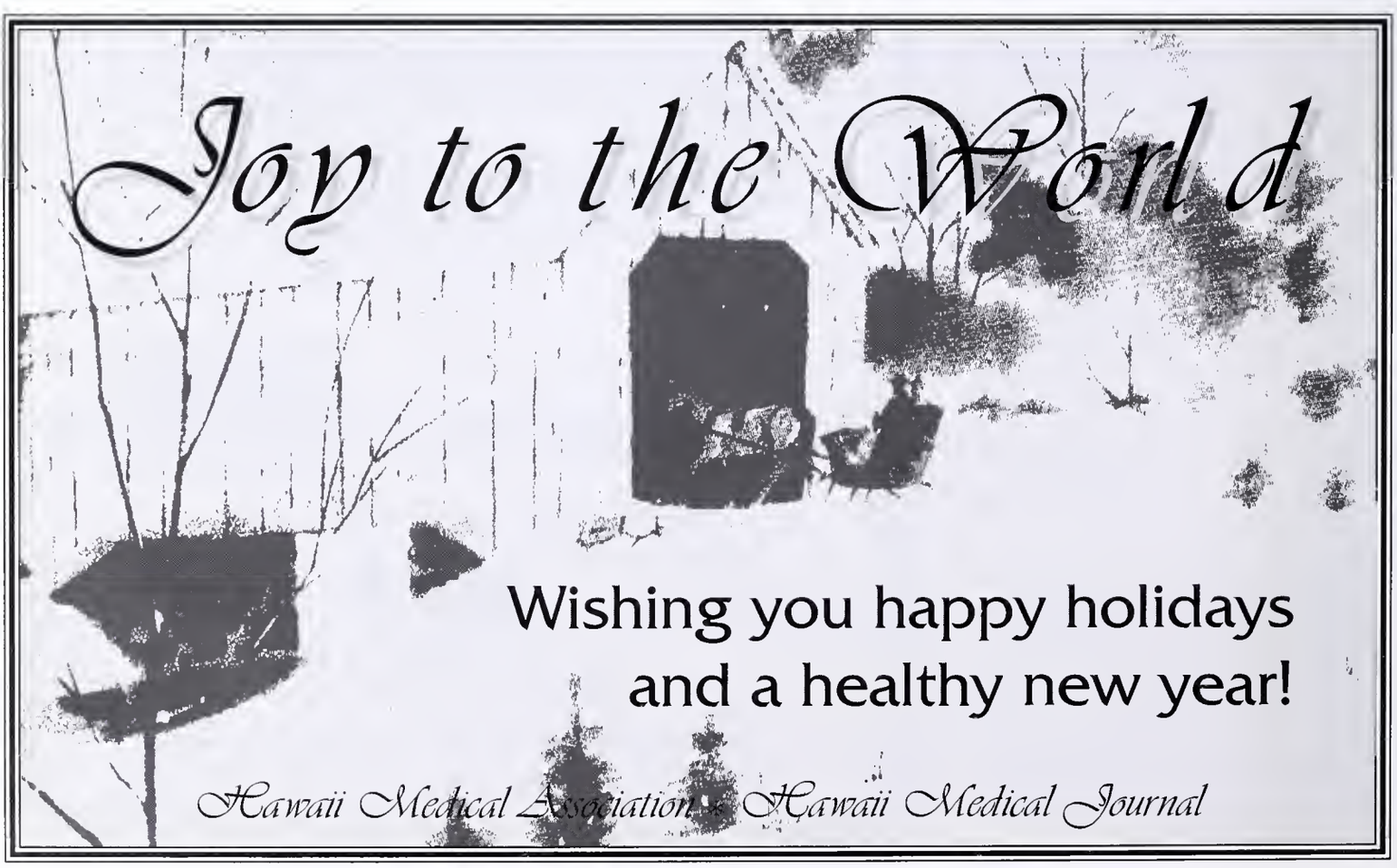
The Council listened to the presentation of the Committee on Nurse Prescriptive Authority that met with the nurses. Because of HMA's policy and definition of physician supervision of nurses prescribing, the nurses suspended negotiations for now. It also listened to member Chris Gulbrandsen, Dean of UH Medical School, on the training program at outreach facilities that included medical students, nurses, social workers and the community. The community-based training centers would incorporate the training of nurse practitioners. Outcome evaluations of the treatment teams could be done.

Council requested that Jon Won check with Region IX HCFA about its ruling that all medical records are available to PRO, even if the record contains confidential HIV status information, and that even non-Medicare patient records could be available to PRO for quality review purposes; if state law conflicts with federal law, federal law takes precedence.

It approved the formation of an HMA Domestic Violence Committee to educate all physicians in Hawaii to recognize, diagnose and treat victims of domestic violence. HMA should assist in educating the community as well.

The 1992 Annual Meeting held at the Ilikai Hotel in October 1992 was both a financial success and program-wise.

Fred Holschuh
Secretary





Because One Size Doesn't Fit All...

New Humulin 50/50 is the tailor-made answer to individual patient needs. A unique combination of equal amounts of Regular human insulin and NPH human insulin, it will be useful in situations in which a greater initial insulin response is desirable for greater glycemic control.

Like Humulin 70/30*, new Humulin 50/50 offers the convenience and accuracy of a premix. And it can be used in conjunction with an existing 70/30 regimen.



***New* Humulin® 50/50**

50% human insulin isophane suspension
50% human insulin injection (recombinant DNA origin)

The Newest Option in Insulin Therapy

WARNING: Any change of insulin should be made cautiously and only under medical supervision.

* Humulin® 70/30 (70% human insulin isophane suspension, 30% human insulin injection [recombinant DNA origin]).

Lilly

Global Excellence in Diabetes Care
Eli Lilly and Company
Indianapolis, Indiana
46285

HI-7911-B-249343 © 1992, ELI LILLY AND COMPANY

Coronary Atherectomy: Report of the First Experience in Hawaii

Edward N Shen, MD
Roy Chen, MD
Roger Ashmore, MD
Wesley Kai, MD
Roger White, MD
Niall Scully, MD
Mark Grattan, MD

Since Andreas Gruentzig[1] first introduced percutaneous transluminal coronary angioplasty (PTCA) in 1977, the ability to revascularize occluded coronary vessels with a catheter has enjoyed an explosive and unimaginable growth. As the equipment and operator experience improved, the possibilities appeared boundless. However, balloon angioplasty is hampered by a significant restenosis rate in the dilated vessel (approximately 30%), which is higher in selected locations (up to 60% in the proximal left anterior descending artery), even in the best of hands. This fundamental limitation may in part be due to the actual nature of the technique itself—stretching the vessel and fissuring the plaque causing remodeling without removal. The uneven, exposed vessel surface post-plaque rupture may contribute to activation of the hemostatic system, with acute thrombosis and release of various platelet and endothelial-derived growth factors, leading to long-term tissue proliferation and restenosis. Atherectomy, the mechanical removal of plaque from the vessel wall, appears to be an answer. This process actually debulks the culprit tissue and leaves behind a smoother, presumably less thrombogenic surface. We wish to report our first experience with a specific form of this technique in 4 consecutive patients, with a brief discussion of its promises and limitations.

Technique

Atherectomy currently can be performed percutaneously by a catheter. There are 3 major techniques: Directional, rotational and extractional. Only the directional form is approved by the FDA for coronary circulation and was the technique used in all our patients.

Directional atherectomy was developed by John B. Simpson MD at Sequoia Hospital in Redwood City, California in 1985, first for the peripheral vessels of the human body. Coronary work started in 1986[2]. The directional coronary atherectomy (DCA) catheter basically consists of a cup-shaped cutter housed in a rigid cylindrical metallic case at the catheter tip. This case has a longitudinal window along one side and an inflatable long balloon on the opposite side. There is a flexible nose cone which serves to hold back the cut tissue and also minimizes tissue trauma as the catheter is advanced inside the vessel. The entire catheter is guided by a steerable 0.014 inch guide-wire which is threaded coaxially through the entire catheter (including the cutter). The cutter is connected by a hollow cable to a hand-held, battery-driven motor unit that spins the cutter at 2,000 rpm. The cutter can be manually advanced or retrieved by a proximal lever.

During the procedure, the catheter is delivered to the culprit vessel in a 10 or 11 French guiding catheter, introduced percutaneously through the femoral artery. The technique is similar to PTCA. The lesion is traversed with the guide-wire, over which the catheter is advanced. The opening in the distal casing is then oriented across the lesion. The balloon is inflated by a manually controlled device with pressures of 10 to 40 psi, to push the window against the atheromatous plaque. The cutter is withdrawn, the drive unit is turned on, and the spinning cutter is slowly advanced across the window, shearing off the tissue in the process (Figure 1). The balloon is deflated and the catheter is torqued manually 45° to 90° to orient the window to a different part of the plaque. The process is then repeated. The cuts are generally made circumferentially (360°) or directionally if the plaque is eccentric, with progressively increasing balloon inflation pressures, to allow for deeper cuts. A larger device can be used if the end result is less than satisfactory (the AtheroCath is available in 3 sizes: 5F, 6F and 7F).

Simpson had previously recommended leaving a residual lesion of no more than 30%. The current practice is to make the vessel as normal appearing as possible as there is increasing evidence to suggest that a more complete atherectomy reduces restenosis[3].

The patients are all premedicated with aspirin and fully anticoagulated with intravenous heparin at the time of the procedure, maintaining an activated clotting time of >350 sec. Post-procedure, because of the size of the arterial sheath, close attention must be paid to the circulatory status of the distal extremity. It is common practice to remove the sheath on the same day.

The concept is highly attractive, ie the mechanical removal of the offending plaque. In reality, much of the angiographic improvement following DCA is due to the Dotter effect, much akin to the mechanism of PTCA action—a physical dilatation of the lumen with the catheter and the inflated balloon[4]. Therefore, it behooves the operator to avoid using excessively high inflation pressures, such that there is more cutting and less dottering. It is estimated that actual tissue removal contributes to about 25% of the angiographic luminal improvement[5].

Department of Cardiology and Cardiovascular Surgery
Straub Clinic & Hospital
University of Hawaii, John A Burns School of Medicine

(Continued on page 326) ➤

close at hand



THE QUEEN'S MEDICAL CENTER

A QUEEN'S HEALTH SYSTEMS COMPANY

Case reports

Case No. 1 is a 70-year-old housewife with hypertension, hypercholesterolemia, type II diabetes mellitus and idiopathic hypertrophic subaortic stenosis (IHSS). She had exertional angina and was found to have serial (75%, 90%) proximal left anterior descending (LAD) and 80% proximal ramus intermedius lesions, with vigorous left ventricular (LV) systolic function and ejection fraction (EF) over 75%. She had undergone successful PTCA of the above lesions. Three months later, she had recurrent angina and was found to have restenosis of a proximal LAD lesion to 90%.

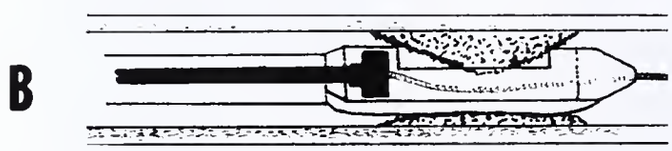
She underwent DCA of her obstruction with a 6 French DVI (Devices for Vascular Intervention, Inc., Redwood City, California) Simpson AtheroCath at our facility. The maximum pressure was 25 psi and a total number of 9 cuts were made circumferentially, reducing the lesion initially to 0%, with six pieces of tissue removed. About half an hour later, the patient developed abrupt hypotension (50 to 60 mmHg systolic) without chest discomfort or electrocardiographic ST-T wave changes. She also had recurrent ventricular tachycardia-fibrillation, requiring direct-current cardioversion.

An intra-aortic balloon counterpulsation (IABP) catheter was inserted and 1:1 counterpulsation was begun. Angiography revealed complete occlusion of the LAD beyond the site of atherectomy. The vessel was dilated with a 2.5 mm coronary perfusion catheter. Even though patency was achieved within 15 minutes from the onset of hypotension, the patient remained in shock. She was intubated and ventilated artificially. There was a large output of pinkish fluid from the endotracheal tube, consistent with pulmonary edema. Systolic pressure was only 30mmHg despite maximal pressor and mechanical support.

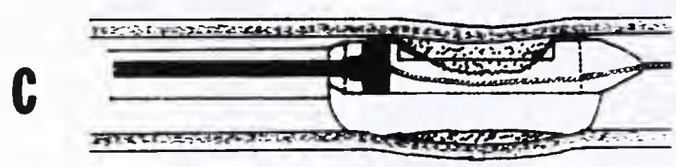
Figure 1. Mechanism of directional coronary atherectomy (DCA).



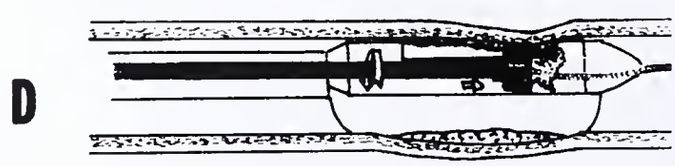
Coronary artery with an eccentric stenosis. A 0.014-inch guide wire has just been threaded across the lesion.



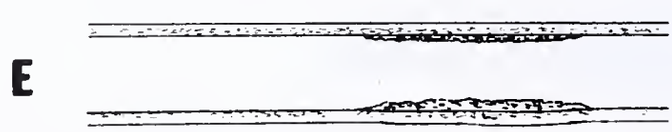
Over the guide-wire, the DVI Simpson AtheroCath is advanced across the obstruction with the window facing the bulk of the eccentric lesion. Note that the wire is coaxial; it runs through the center of the catheter including the cutter (shaded black). The cup-shaped cutter is pulled back proximally before the cut.



The balloon is inflated to 15 psi pushing the window firmly into the plaque.



The drive unit is turned on, spinning the cutter at 2,000 rpm. The cutter then is gently and slowly advanced across the window, shaving off the plaque in the process. The atherectomized tissue is pushed distally into the soft nose cone, which serves as a reservoir.



After the cut(s), the catheter and guide-wire are withdrawn.

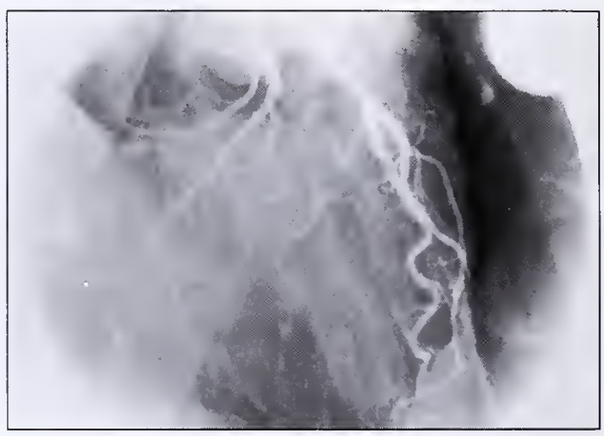


Figure 2A. Case No. 2. Ninety percent proximal left anterior descending (LAD) stenosis.

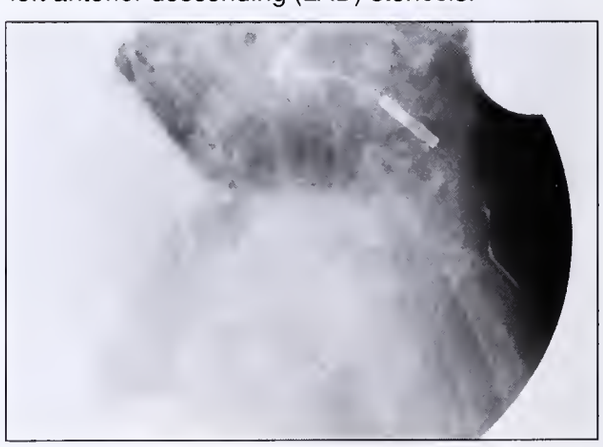


Figure 2B. Seven F AtheroCath across obstruction. The spinning cutter is one-third the way across the cutting window.

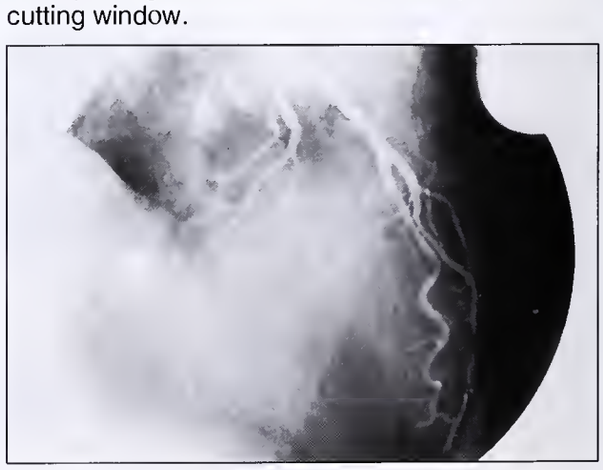


Figure 2C. Same lesion post DCA with residual stenosis of 10%.

The right femoral artery and vein were cannulated and extracorporeal cardiopulmonary bypass with the CPS system was begun. She was moribund when she was brought to the operating room. She received saphenous venous grafting of her LAD and right coronary artery (which had a 50% proximal lesion). The culprit vessel was inspected: there was good antegrade flow without thrombus or perforation.

Somewhat surprisingly, she was easily weaned from cardiopulmonary bypass with the first attempt in the operating room. IABP and pressor support were discontinued by the fourth postoperative day. The maximum creatine kinase (CK) was 4,829 units/L (8.0% MB).

She expired 8 months post-procedure from respiratory failure and urinary sepsis.

Case No. 2 is a 61-year-old retired man with a 45 pack-year smoking history and hypercholesterolemia. He had exertional chest pressure; the treadmill stress test was positive. Catheterization revealed a 90% proximal LAD lesion, 90% proximal circumflex marginal lesion and distal right coronary artery disease. EF was normal at 60%. He had successful PTCA of the LAD and marginal lesions (to 30% and 10% respectively).

Chest pain recurred with restenosis of the LAD lesion to 90% (Figure 2A). Successful DCA was performed, using first a 6F DVI Simpson AtheroCath with a series of 16 circumferential cuts (maximum pressure 35 psi). This was followed by a 7F AtheroCath with 4 cuts (maximum pressure of 20 psi)(Figure 2B). The lesion was reduced to 10% (Figure 2C). Moderate amounts of tissue were removed (Figure 3). CK was normal post procedure. The patient is well after 1 year of follow-up.

Case No. 3 is a 49-year-old man with hypertension and former smoking history. In 1979, because of angina, he had a cardiac catheterization done which revealed LAD disease. In 1989, he had 1-vessel saphenous vein grafting of the LAD done elsewhere. In early 1991, he nearly drowned while bodysurfing. After struggling back to shore, he developed severe, relentless chest pain. He was admitted to our facility with a non-Q wave myocardial infarction. CK was 794 units/L (11.3% MB).

A thallium treadmill test was positive for an anterolateral ischemic defect. Catheterization revealed an 80% mid-lesion in the LAD venous graft, with total occlusion of the LAD proximally (Figure 4A). There was moderate anterior hypokinesis, with EF of 60%. He underwent successful DCA of the graft lesion, with a 7F AtheroCath, employing 16 circumferential cuts (maximum pressure 35 psi) (Figure 4B). The lesion was reduced to 10% (Figure 4C). CK was normal post-procedure. The patient remains pain-free on 10-month follow-up.

Case No. 4 is a 68-year-old retired man with hypertension. He had onset of severe chest pain in late 1991, with acute anterior MI. Catheterization revealed a 90% proximal LAD lesion involving a diagonal branch which had a 90% ostial occlusion as well. Both occlusions were dilated to 20% by PTCA. With recurrent angina,

(Continued on page 328) ➤

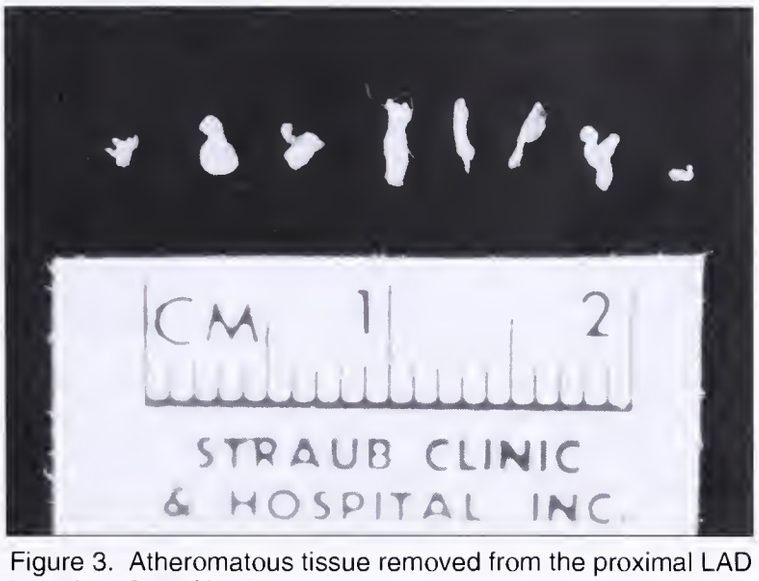


Figure 3. Atheromatous tissue removed from the proximal LAD in patient Case No. 2.

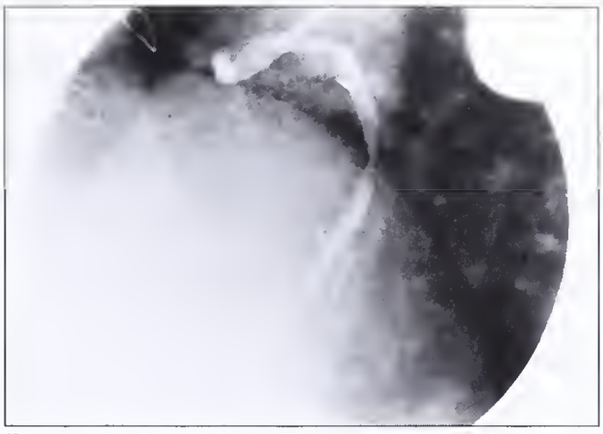


Figure 4A. Case No. 3. Eighty percent mid-lesion in saphenous vein graft to LAD.

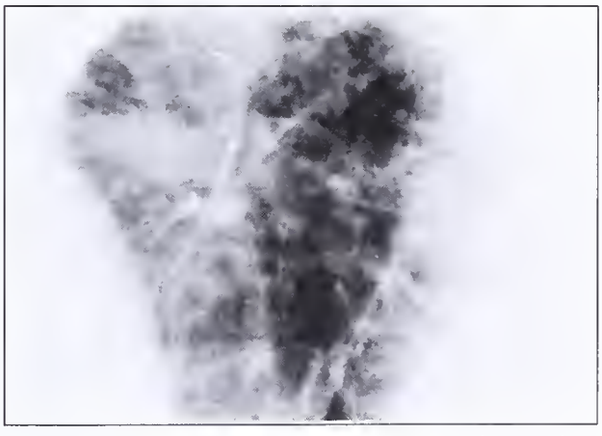


Figure 4B. Seven F AtheroCath across obstruction in graft, with cutter pulled back proximally.

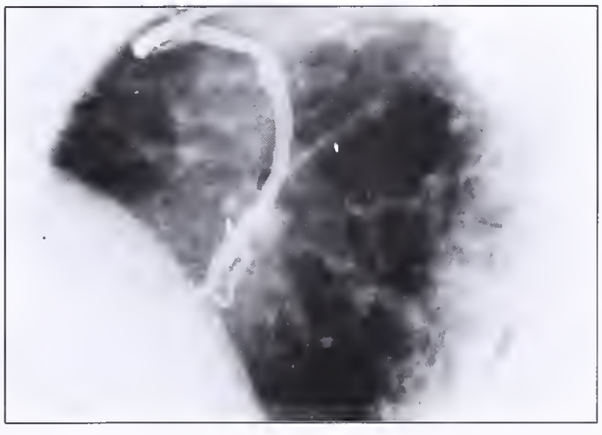


Figure 4C. Same lesion post DCA with residual stenosis of 10%.

he was found to have restenosis of his LAD lesion to 80% eccentrically and the diagonal obstruction to 90% (Figure 5A).

The LAD lesion responded to a successful DCA with a 6F AtheroCath (11 cuts with maximum pressure 20 psi). Moderate amounts of tissue were removed. The lesion was reduced to less than 20%. An attempt was made to make this perfect with a 7F AtheroCath, with 5 cuts at low pressure (10 psi). Unfortunately, this did not remove more tissue but left the vessel with a small nose cone-induced dissection distal to the site of atherectomy (Figure 5B), which was stable and acceptable in appearance (by repeat catheterization next morning). The ostial diagonal obstruction had successful balloon dilation to 20%.

CK was negative afterward. The patient is well after 8-month follow-up.

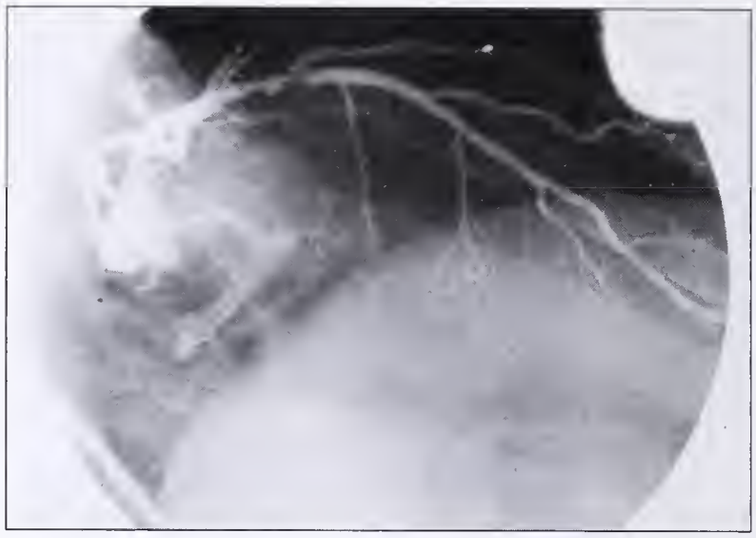


Figure 5A. Case No. 4. 80% eccentric LAD lesion with 90% ostial diagonal stenosis.



Figure 5B. Residual LAD lesion of 20% post-DCA (note small intimal dissection) and residual diagonal stenosis of 20% post- PTCA.

Discussion

Our results

Our cases are fairly typical of the routine patients considered for DCA. Retrospectively, the choice of Case No. 1 is suboptimal because of underlying IHSS. We now believe that IHSS constitutes a major risk factor for catheter interventional techniques for the LAD, the rationale of which we have reported elsewhere[6]. In our case, the vessel underwent abrupt closure, probably from dissection and/or spasm. Even though patency was reestablished within 15 minutes after acute occlusion, the marked stunning of the massively hypertrophied septum had led to shock, worsening ventricular compliance and outflow obstruction, further decrease in coronary perfusion and spiraling hemodynamic consequences. We could not employ nitrates or calcium entry blockers because the patient was profoundly hypotensive. Immediate establishment of extracorporeal bypass percutaneously allowed us to perfuse the brain and vital organs. The ensuing hypothermia and cardiac decompression during emergent bypass presumably helped reduce myocardial oxygen demand and relax the stiff septum leading to hemodynamic recovery.

The other cases were relatively simple. The technique left a very satisfactory angiographic result (smooth lumen, little to no residual stenosis).

The equipment is rather cumbersome. The guiding catheters from DVI were difficult to maneuver, the 10F being superior to the 11F. The AtheroCath device is a throwback to the early days of PTCA. The trackability is quite poor, and lesions beyond an acute bend are virtually inaccessible. We also are concerned about the ever-present risk of dissecting the vessel with the stiff distal casing, as seen in Case No. 4. For native coronary artery stenosis, it has been our practice to restrict the use of DCA to restenosis after previous PTCA or for very eccentric primary lesions. In bypass grafts, we consider it as a first line catheter interventional technique, in part because the graft size frequently exceeds that of the largest PTCA balloon.

Primary success rate of DCA

Since this is a rapidly growing field, much of the data is available only in abstract form, and the same groups of patients are reported in various permutations.

The multicenter SHAVE (Steerable Housing for AtheroVascular Excision) study, with an experience of 480 patients, revealed that the technique resulted in a primary success rate close to 90%.[2] Noncalcified lesions were better than calcified. There was a trend favoring LAD (over circumflex) and proximal (over ostial) lesions. The study had a significant selection bias because patients with tortuous vessels, diffuse disease or moderate to dense calcification were excluded. Thus the results are not directly comparable to those undergoing PTCA (which in experienced hands has a primary success rate of 96% to 97%, for all lesions). A steep learning curve was also noted in the SHAVE study.

Subsequently, the Sequoia group (which contributed the largest percentage of patients to the various multicenter studies) reported the results of its 848 procedures[7]. Their success rate had increased over time (37% in 1987 and 90% in 1989 and 1990), attesting to the validity of the learning curve. Factors associated with a lower success rate were: Calcified, angled or *de novo* lesions and the use of too small a device.

The American College of Cardiology/American Heart Association Task Force Report on the Guidelines for PTCA[8], classified coronary lesions into types A, B and C (Table 1) with type A occlusions anticipating the highest yield and lowest risk. Ellis et al[9], in their study of 400 stenoses, recognized that DCA, like PTCA,

conformed very closely to these criteria for success and complications. The success rates were: Type A 93%, type B1 88%, type B2 75% (there were too few type C lesions for analysis).

Acute complications

Abrupt closure occurred in 4.2% of cases in the multicenter study[10]. This was higher in primary, eccentric, and right coronary artery lesions. Abrupt closure was inversely related to the number of specimens obtained (ie, the more removed the better) and tended to be lower with saphenous venous grafts (p= 0.08). Two-thirds of patients with abrupt closure suffered an MI.

Coronary perforation occurred in 1.3% of cases, none of whom developed tamponade, though one-third of the patients needed emergent bypass surgery[11]. The presence of media and especially adventitia in the excised specimens was correlated strongly with this outcome.

The in-hospital death rate reported by the Sequoia group was 0.35%[7].

There is some concern about peripheral vascular complications because of the large size of the arterial sheaths and guiding catheters. Thus far, an increased incidence has not been reported in literature.

Lesion morphology was found by Ellis et al[9] to have a significant influence on major ischemic complications (death, myocardial infarction and emergency bypass surgery). The complication rates were: Type A 3%, type B1 6%, type B2 13%, type C too few to analyze. In addition, they discovered that stenosis with angulation, proximal tortuosity, decreased preatherectomy minimum lumen dimension and calcification correlated independently with adverse outcome. Extrapolating these data, it may be fair to estimate a major complication rate of 4% to 5% in experienced hands, with a death rate of approximately 0.5%.

Restenosis

Restenosis is the achilles' heel of PTCA and, therefore, the yardstick by which all new catheter interventional techniques will be measured. At least several mechanisms are involved: The elastic recoil of the vessel wall, the activation of the hemostatic system and the stimulation of smooth muscle proliferation post-injury. Debulking the plaque with DCA may reduce elastic recoil; producing a smoother surface may cause less thrombogenesis and smoother flow and hopefully less activation of platelet-derived growth factors.

The Sequoia group reported that restenosis (defined as >50% stenosis evaluated at 6 months) occurred in 36% of native coronaries (31% in primary and 40% in restenosed lesions) and 62% in saphenous venous grafts.[7]

At first glance, DCA does not appear to offer significant advantage over PTCA in terms of restenosis. To address the question, the major randomized CAVEAT (Coronary Angioplasty Versus Excisional Atherectomy Trial) has been started in August, 1991, with the aim of recruiting 1,000 patients by July, 1992. The final report is expected by the end of 1992. This hopefully will provide the much needed answers. Interestingly, Simpson has noted anecdotally that in one of his patients with repeated atherectomies the successive specimens showed progressively decreased proliferative elements. If this observation can be extended to more patients, the solution to restenosis post DCA may well be: "Keep shaving until it stops coming back".

Table 1. ACC/AHA Task Force assigned characteristics of PTCA Type A, B, C lesions[8], as applied to DCA, with success/risk rates per Ellis et al[9].

A *	B **	C ***
discrete	10-20mm	>20mm
readily accessible	moderate proximal tortuosity	excessive proximal tortuosity
nonangulated	>45°, <90°	>90°
nontotal	total (<3months)	total (>3months)
no side branch	protectable side branch	unprotectable side branch
no Ca++	moderate-heavy Ca++	
no thrombus	thrombus	
nonostial	ostial	
concentric	eccentric	
smooth contour	irregular contour	
		degenerated friable vein graft
success 93%	success B1 88% B2 75%	
risk 3%	risk B1 6% B2 13%	

* a type A lesion has to fulfill all of the following criteria.
** a type B lesion has any one of the following criteria. Type B1 has one characteristic, type B2 has 2.
*** a type C lesion has any one of the following criteria.

Advantages over PTCA

For highly eccentric and ulcerated lesions, DCA is unquestionably superior to balloon dilatation in achieving satisfactory angiographic results immediately, offering smoother lumen and less residual stenosis. For elastic lesions, typically in the proximal LAD, this technique also offers a clear edge.

DCA also may be a good salvage tool for localized dissections after balloon angioplasty. These flow-occluding tissue flaps are generally very responsive to atherectomy.

At the same time, directional atherectomy offers a unique opportunity to obtain viable tissue for the study of atherogenesis, and this is being actively pursued both at the microscopic[12] and molecular[13] levels, eg it has been found that smooth-muscle-cell migratory velocity is much higher and human non-muscle myosin heavy chain-B mRNA is present in greater abundance in restenotic than in primary plaque material.

Atherectomy by other means

Mechanical Rotational Atherectomy (MRA) or Percutaneous Transluminal Coronary Rotational Ablation (PTCRA) is done by the Rotablator (Heart Technology, Inc., Bellevue, Washington). This instrument consists of an olive-shaped brass burr coated with fine diamond chips and connected to a flexible drive shaft. The burr can rotate at rates of 140,000 to 190,000 rpm, driven by a compressed air turbine. The lesion is first crossed by a special coaxial 0.009-inch guide-wire. The rotating burr is then pushed across the lesion, pulverizing the plaque into microparticles of less than 5 micron diameter, which embolize distally into the coronary micro-

(Continued on page 330) ➤

vasculature and are cleared by the reticuloendothelial system. Initial results were encouraging[14,15]. The immediate success, complication and restenosis rates are equivalent to PTCA. The device is promising for calcified lesions and diffuse disease as well as in tortuous vessels. However, at least a third of the MRA patients require adjunctive PTCA. Furthermore, about 13% of patients demonstrate significant CK rise (≥200 U/L with MB ≥7.5 ng/ml) up to 24 hours post procedure[16].

The Transluminal Extraction Catheter (TEC) (Interventional Technologies, Inc., San Diego, California), is the least well-known of the 3 atherectomy devices. It consists of a hollow torque tube with a distal cutting cone of 2 stainless steel blades. The lesion is first crossed over by a special stiff 0.014-inch guide-wire. The conical cutter is then rotated at 750 rpm by a battery-operated drive unit. Lactated Ringer's solution is continuously infused through the guiding catheter and the debris is suctioned through the hollow tube into a collecting vacuum bottle. The experience with this device is limited. So far, it does not appear to offer any significant advantage over PTCA[17], except that it seems to work well in thrombus-containing lesions[18] (hence a potential role in acute MI), diffuse disease and ostial disease[19]. A fairly large volume of blood may be aspirated along with the debris. At least two-thirds of patients require adjunctive PTCA following this technique. By comparison, less than 15% of patients undergoing DCA require additional balloon dilatation.

The 3 methods of doing atherectomies, at their current level of development, have not surpassed PTCA in terms of ease of use or general applicability and are likely to serve as supplemental techniques. Within that framework, the 3 actually complement each other. For example, for elastic lesions, DCA and TEC are quite suitable. For diffuse disease or for distal lesions in small vessels, MRA may be better. For lesions containing thrombus or for obstructed degenerative saphenous venous grafts with copious, cheesy atheromatous material, TEC has the advantage. For ulcerated lesions, localized dissections and flaps, DCA should be considered. Of the 3, MRA may be the most user-friendly.

Beyond PTCA and atherectomies

The field of catheter interventional techniques is rapidly advancing. Lasers are gaining a strong foothold. Excimer laser coronary angioplasty (ELCA) already has been approved by the FDA for use in diffuse coronary disease and will likely have a useful role in total occlusions and saphenous venous graft lesions, including those appearing degenerative [20]. Other forms of laser energy sources and naked-beam/heated-balloon catheters are under development. Various forms of intracoronary stents[21] also are being studied for treatment of acute dissections/abrupt closure and for the long-term prevention of restenosis.

Ultimately, the solution may be at the molecular level with development of antibodies or factors that will antagonize smooth muscle proliferation and atherogenesis[22] and with the early identification of genomes that are atherosclerosis prone, so that rigid control of risk factors and other preventive measures can be instituted at a young age.

Conclusion

We have presented our early experience in 4 patients who underwent directional coronary atherectomy. It is a helpful adjunctive technique to PTCA; however, there is a steep learning curve and careful patient selection is the key to success. The currently available equipment is quite cumbersome and needs refinement. We have confined its use to recurrent or eccentric native coronary lesions and to primary lesions in clean saphenous-venous bypass grafts. Whether the procedure is more effective than PTCA in reducing restenosis may be answered by an ongoing controlled trial. We look forward to the arrival of other catheter techniques, lasers and stents. It is highly likely that with the additional armamentarium consisting of atherectomy, laser, and stents that most coronary obstructions will be amenable to catheter intervention; emergency coronary bypass for failed PTCA will be a thing of the past. However, we are not looking forward to the proliferation of molecular biologists, who may make interventional cardiologists and cardiovascular surgeons a thing of the past.

REFERENCES

1. Gruentzig A. Transluminal dilatation of coronary-artery stenosis(letter). *Lancet*. 1978;1:263.
2. Robertson GC, Hinohara T, Selmon MR, Johnson DE, Simpson JB. Directional coronary atherectomy. In Topol EJ:*Textbook of interventional cardiology*. Philadelphia, W.B. Saunders Co., 1990; 563 to 579.
3. Fishman R, Kuntz R, Carrozza J, Pomerantz R, Diver D, Safian R, Baim D. Results of coronary atherectomy–bigger is better (abstract). *Circulation*. 1991;84:II-520.
4. Sharaf BL, Williams DO. "Dotter effect" contributes to angiographic improvement following directional coronary atherectomy (abstract). *Circulation*. 1990;82:III-310.
5. Penny WF, Schmidt DA, Safian RD, Erny RE. Insights into the mechanism of luminal improvement after directional coronary atherectomy. *Am J Cardiol*. 1991;67:435 to 437.
6. Shen EN, Grattan M, Hall B, Lee A. Idiopathic hypertrophic subaortic stenosis constitutes high risk for catheter intervention techniques of the left anterior descending artery. *Am Heart J* 1992;124:1081 to 1082.
7. Selmon MR, Hinohara T, Vetter J, Robertson GC, Bartzokis TC, McAuley BJ, Sheehan DJ, Braden LJ, Simpson JB. Experience of directional coronary atherectomy; 848 procedures over 4 years (abstract). *Circulation*. 1991;84:II-80.
8. Popma JJ, Topol EJ, Pinkerton CA, Whitlow PL, Hartzler GO, Selmon MR for the U.S. Directional Coronary Atherectomy Study Group. Abrupt closure following directional coronary atherectomy: clinical, angiographic and procedural outcome (abstract). *J Am Coll Cardiol*. 1991;17:23A.
9. Vetter J, Robertson G, Selmon M, Simpson J, Sheehan D, McAuley B, Braden L, Fleischhauer F, Le S, Munn J, Hinohara T. Perforation with directional coronary atherectomy (abstract). *J Am Coll Cardiol*. 1992;19:76A.
10. Ryan TJ, Faxon DP, Gunnar RM, Kennedy JW, King SB, Loop FD, Peterson KL, Reeves TJ, Williams DO, Winters WL: Guidelines for percutaneous transluminal coronary angioplasty: A report of the American College of Cardiology/American Heart Association Task Force on as sessment of diagnostic and therapeutic cardiovascular procedures (sub committee on percutaneous transluminal coronary angioplasty). *J Am Coll Cardiol*. 1988;12:529 to 545.
11. Ellis SG, De Cesare NB, Pinkerton CA, Whitlow P, King SB, Ghazzal ZMB, Kereiakes DJ, Popma JJ, Menke KK, Topol EJ, Holmes DR. Relationship of stenosis morphology and clinical presentation to the procedural results of directional coronary atherectomy. *Circulation*. 1991;84:644 to 653.
12. Bauriedel G, Windstetter U, Demaio SJ Jr, Kandolf R, Hofling B. Migra tory activity of human smooth muscle cells cultivated from coronary and peripheral primary and restenotic lesions removed by percutaneous atherectomy. *Circulation*. 1992;85:554 to 564.
13. Leclerc G, Isner JM, Kearney M, Simons M, Safian RD, Baim DS, Weir

(Continued on page 335) ➤



"Ron's Rule—I give myself one week to meet new people and start having fun on a locum tenens assignment. It hasn't failed me yet."

Ron Richmond, MD, joined the CompHealth locum tenens medical staff when he completed his residency. He wanted to travel. He loves to meet people. A little time off sounded really good. And he thinks being exposed to different types of medical practice will serve him well when he returns to his hometown to establish a community health center.

A singer. A board-certified family practitioner. Soft-spoken for a New Yorker. Ron Richmond knows. . .

It's a great way to practice medicine

CompHealth

LOCUM TENENS

1-800-453-3030

Salt Lake City ■ Atlanta ■ Grand Rapids, Mich.

MEDICAL A*B*C: A Tool For Tomorrow From A Company That Wasn't Born Yesterday...

Pacific Software Inc.

Solutions for Hawaii's Physicians

- Designed and Developed in Hawaii.
- Largest Supplier of Office Management Systems in the State.
- Systems for Every Sized Practice.
- Data Processing Service.
- Servicing Hawaii's Medical Community since 1981.

PACIFIC SOFTWARE INC.

Pacific Software Building • 537 Pensacola Street • Honolulu, Hawaii 96814 • (808) 521-2800

Neonatal survival during a 2,500-mile flight

H Scott Bjerke MD*
Larry Barcliff RRT**
Robert P Foglia MD+

Neonatal respiratory failure, no matter what the cause, may not always respond to standard mechanical ventilation techniques. Extracorporeal membrane oxygenation has emerged over the last 15 years as an adjunct to the treatment of these babies with a greater than 80% survival nationwide.

Limited resources and personnel costs can be prohibitive, forcing regionalization of extracorporeal membrane oxygenation (ECMO) centers. Geographic distance from a center should not limit its potential application, however. Familiarity with the technique, early application of the modality and the availability of medical air transport, allows for referral and transfer of neonates over great distances with excellent results and outcomes.

We present a case of respiratory failure in a neonate transported 2,500 miles for ECMO therapy with an excellent outcome and a rapid return home.

Introduction

Neonatal respiratory failure secondary to meconium aspiration, sepsis, diaphragmatic hernia and respiratory distress syndrome can be successfully treated with extracorporeal membrane oxygenation (ECMO) with an 80% survival and minimal mortality[1-8]. The treatment of neonatal respiratory failure with prolonged veno-arterial extracorporeal oxygenation is a considerable undertaking, however, and requires a significant commitment on the part of those involved, with continuous nursing, technician and physician coverage for what may be many weeks. A consistent demand for such service and a significant population base of potential patients is needed to keep an ECMO team optimally trained, and the required equipment used in order to be cost-effective. Because of these constraints, ECMO centers have become regionalized, with many major metropolitan teaching hospitals now having a 24-hour on-call ECMO team treating two or more neonates a month.

Although it may be possible to document the periodic need for ECMO in various locales, limited resources and personnel make the creation of an ECMO service economically infeasible at many medical centers. The presence of an efficient, on-call, medical air-transport system, especially when dealing with great distances, makes the need for a low-volume, high-cost local ECMO center less critical. Such medical air-transport has been shown to optimize care for neonatal and pediatric patients at regional medical centers, regardless of distance, in a number of disease states, including respiratory failure[9-13].

We present a case of a Hawaii newborn who had progressive respiratory failure and pulmonary hypertension due to severe meconium aspiration, and who was successfully transferred by military medical evacuation aircraft over 2,500 miles from Honolulu to Los Angeles and UCLA Medical Center for ECMO with an excellent outcome.

Case Study

A 3.65 kilogram infant was born by spontaneous vaginal delivery 2 hours after rupture of membranes, to a healthy gravida 1, para 0 woman who had had good prenatal care at 42 weeks' gestation. Delivery was complicated by the cord around the infant's neck, meconium staining of the skin and aspiration of meconium. Oro-tracheal suctioning at delivery revealed small amounts of blood-tinged meconium from below the vocal cords on 4 tries. Apgar scores were 4, 6, and 8 at 1, 3 and 10 minutes respectively. The baby developed progressive cardiopulmonary insufficiency requiring intubation with an FiO_2 of 1.00, pressure settings of 37/9 cm H_2O, and a ventilatory rate of 120/min in order to maintain a pO_2 above 40 torr. Serial chest roentgenograms showed progressive opacification of both lung fields with worsening bilateral air bronchograms. The baby required dopamine and dobutamine infusions to support blood pressure and continuous i.v. fentanyl citrate for sedation.

At this point, the neonatology physicians communicated with the UCLA ECMO team regarding transfer to UCLA Medical Center for evaluation and for ECMO should the baby's condition continue to deteriorate. Intracranial hemorrhage and cardiac structural abnormalities were ruled out by ultrasound study in Hawaii prior to transport. Arrangements were made for air evacuation to Los Angeles by military air ambulance. The infant was accompanied by a neonatologist and a medical flight nurse in accordance with American Academy of Pediatrics guidelines[14].

The patient arrived in Los Angeles at 37 hours of age after a 6-hour flight. At that time she weighed 4.18 kg, a 0.53 kg (15%) increase in weight as a result of vigorous fluid resuscitation necessary to maintain reasonable cardiopulmonary perfusion parameters. Dopamine (15 mcg/kg/min) and dobutamine (17 mcg/kg/min) were required to maintain a systolic blood pressure of 65 and a heart rate of 120 beats per minute. Arterial blood gas on ventilator settings of FiO_2 -1.00, rate 80/min and pressures of 34/4 cm H_2O resulted in a pH of 7.52, pCO_2 31 torr and pO_2 49 torr.

* Assistant Professor of Surgery
University of Nevada School of Medicine, Las Vegas, Nevada
** Department of Surgery
UCLA Medical Center, Los Angeles, California
+ Associate Professor of Pediatric Surgery
UCLA School of Medicine, Los Angeles, California

Address reprint requests to:
H Scott Bjerke, MD
Department of Surgery
University of Nevada School of Medicine
2040 W Charleston Blvd., Suite 601
Las Vegas, Nevada 89102

The oxygenation index (OI) was calculated at 0.41 and the alveolar-arterial oxygen difference ($AaDO_2$) was 633 torr. However, conservative medical management was not successful in reversing the pulmonary hypertension and respiratory failure. Therefore, the patient was placed on ECMO at 57 hours of life. After initiation of ECMO, ventilator settings were immediately reduced to FiO_2 - 0.30, rate 15/min and pressures of 24/14 cm H_2O. Blood gas results showed an arterial oxygen saturation of 99 to 100% with a mixed venous saturation of 80%, documenting good oxygen delivery and normal peripheral tissue oxygen extraction. ECMO flows approximating 80% partial cardiopulmonary bypass were maintained for 24 hours; then the infant was rapidly weaned as she demonstrated decreasing pulmonary hypertension and improving pulmonary function at ventilator settings while at rest. The infant was removed from ECMO support after 66 hours, gradually weaned off the ventilator over the next 72 hours and then extubated.

On day 21 of life, the infant and her parents returned to Hawaii via commercial air transport and without incident. The infant continued to do well on local follow-up in Hawaii 2 years later.

Discussion

The treatment of respiratory failure with partial cardiopulmonary bypass or Extracorporeal Membrane Oxygenation originated at the University of California, Irvine, under Robert Bartlett MD and associates in the early 1970s. Initial trials of ECMO took place on severely ill patients with unresponsive respiratory failure in all age groups from premature neonates to adults. The early studies showed a survival advantage only in newborns near parturition. However, premature infants had a high incidence of intracranial hemorrhage while on systemic anticoagulation. Adults showed no improvement in survival when ECMO was applied instead of standard mechanical ventilatory management at that time.

The indications and contraindications for ECMO (Table 1) were derived from the early experience of Bartlett and others who began using ECMO to treat neonatal respiratory failure unresponsive to aggressive mechanical ventilatory support. These criteria attempt to define the population of neonates who have reversible causes of pulmonary hypertension and respiratory failure[15]. This does not include those neonates in whom ECMO might function as temporizing therapy, such as being a bridge to cardiac transplant, or a cardiac reconstructive procedure, or for those in the pediatric age group who might benefit from ECMO therapy (near-drowning, pneumonia, etc). Current studies are attempting to determine the applicability and efficacy of ECMO in those populations.

Overall survival of neonates on ECMO, including the various causes of neonatal pulmonary hypertension and respiratory failure as reported in the National Neonatal ECMO Registry, are listed in Table 2. Cumulative survival of the 3,500 neonates treated since 1972 is 85%[1]. These statistics are more impressive when it is noted that criteria for ECMO therapy was based on parameters calculated to define a predicted 80% mortality with conventional mechanical ventilator management.

The criteria used at UCLA are similar to those used across the nation at other centers (Table 3), although it should be noted that variability in the criteria exists among ECMO centers, based on their individual experiences[15]. It is also important to note that these are entry criteria for placing an infant on ECMO and are not criteria for transport to an ECMO center for the purpose of evaluation.

Most centers report that the majority of ECMO candidates are transferred from other institutions to the center, an experience supported at UCLA where 94% of patients treated were transferred from other hospitals.

The average age of neonates placed on ECMO at UCLA was 56±36 hours, approximately 20 hours after admission to the Neonatal Intensive Care Unit. Although the usual en route transport time to UCLA from the referring hospitals for these infants averaged less than 2 hours, many of the referral calls were actually initiated 12 to 24 hours prior to the actual transport of the patients. The time between consideration of ECMO at the transferring institution, acceptance of the referral call by the tertiary Neonatal Intensive Care facility and the actual arrival of the patient at UCLA was in some cases as long as 24 hours and within a 150-mile radius from UCLA Medical Center. Because of the short distances involved, this delay did not complicate initiation of ECMO treatment in most cases; however, longer, out-of-state transport with travel times more than 5 to 6 hours might have been more difficult.

The evidence from literature supports early transport of acutely ill neonatal and pediatric patients to a regional neonatal intensive care unit after stabilization as the ideal; such a system maximizes survival in a variety of disease states[9,16-17]. This also has been shown to be true in the adult age group[18-19].

It is impossible to predict at what rate an infant with pulmo-

Table 1. Criteria for treatment of neonates with ECMO.

1. gestational age > 35 weeks
2. weight > 2 kilograms
3. no structural cardiac disease
4. no intracranial hemorrhage
5. no severe coagulopathy
6. < seven days of assisted ventilation (relative limit)
   or < 10 days assisted ventilation (absolute limit)
7. maximal ventilator management
6. respiratory failure criteria (defined at each institution)

Table 2. National ECMO Registry Center pooled survival data.

PATHOLOGY	NO. PATIENTS	SURVIVAL %
Meconium aspiration	1313	92.5
RDS	517	83.2
Diaphragmatic hernia	546	62.5
Pneumonia/sepsis	366	76.8
Air leak syndrome	10	60.0
Cardiac	46	60.9
Persistent fetal circulation	456	86.8
Other	81	84.0

(Continued on page 334) ➤

Table 3. ECMO respiratory failure criteria as defined at UCLA.

RESPIRATORY FAILURE CRITERIA AS DEFINED AT UCLA

Alveolar arterial oxygen difference ($AaDO_2$)
= barometric pressure - water vapor pressure (47 mm Hg) - (pO_2 + pCO_2)
= (760 mm Hg) - (47 mm Hg) - (pO_2 + pCO_2)

Oxygenation index (OI)
= FiO_2 x pO_2 divided by mean airway pressure

CALCULATIONS PREDICTIVE OF A >80% MORTALITY[3]

$AaDO_2$
>610 mm Hg for 8 hours,
or >605 mm Hg with a PIP >38 cm H_2O for 4 hours

Oxygenation index. (OI) >0.4

nary hypertension and respiratory failure will deteriorate. However, the success treatment with ECMO is as much affected by early referral and expedient transport before the baby actually meets ECMO criteria as it is by reason of the severity of the respiratory failure. The neonate we report tolerated ECMO therapy without complication, survived her respiratory insult and did extremely well in follow-up in great part because of early aggressive therapy and early transport by the neonatology service in Hawaii, *before* the need for ECMO was clearly defined.

A regional ECMO Center in Hawaii would obviate the need for long-distance transport, but it would require a significant start-up cost (estimated at $250,000) and would require physician, technician and nursing bedside support continuously for the entire (average 120 hours) ECMO therapy duration. In addition, it has been recommended that such centers treat a minimum of 2 to 3 neonates per month in order to maintain the competence and certification of the ECMO personnel, and in order to justify the costs of running and maintaining an ECMO program. Currently the need for ECMO in the State of Hawaii may not justify the creation of a regional ECMO referral center; however, as the health care system in the Pacific Basin develops, with Hawaii in a geographically centralized position, this need may change and a Hawaii Regional ECMO Referral Center may become necessary. Until that time comes, it can be shown that long-distance transport of severely ill neonates with pulmonary hypertension and respiratory failure is feasible using currently available transport systems. Excellent patient outcomes are expected, given early referral and aggressive stabilization pre-flight.

REFERENCES

1. Extracorporeal Life Support Organization (ELSO). *Registry Data.* Jan 1990.
2. Bartlett RH, Andrews AF, Toomasian JM, Haiduc NJ, Gazzaniga AB. Extracorporeal membrane oxygenation for newborn respiratory failure: 45 cases. *Surgery.* 1982;92:425-433.
3. Krummel TM, Greenfield LJ, Kirkpatrick BV, Mueller DG, Ormazabal M, Salzberg AM. Clinical use of an extracorporeal membrane oxygenator in neonatal pulmonary failure. *J Pediatr Surg.* 1982;17:525-531.
4. Bartlett RH, Roloff DW, Cornell RG, Andrews AF, Dillon PW, Zwischenberger JB. Extracorporeal membrane oxygenation in neonatal respiratory failure: a prospective randomized trial. *Pediatrics.* 1985;76:479-487.
5. Bartlett RH, Gazzaniga AB, Toomasian J, et al. Extracorporeal membrane oxygenation (ECMO) in neonatal respiratory failure; 100 cases. *Ann Surg.* 1986;204:236-245.
6. Short BL, Miller MR, Anderson KD. Extracorporeal membrane oxygenation in the management of respiratory failure in the newborn. *Clin Perinatol.* 1987;14:737-748.
7. O'Rourke PP, Crone RK, Vacanti JP, et al. Extracorporeal membrane oxygenation and conventional medical therapy in neonates with persistent pulmonary hypertension of the newborn: a prospective randomized study. *Pediatrics.* 1989;84:957-963.

Table 4. Southern California Regional ECMO Centers and contacts.

ADDRESS	COORDINATOR	ECMO DIRECTOR
Children's Hospital of Los Angeles Dept of Neonatology/Pediatric Surgery Box 83 4650 Sunset Blvd. Los Angeles, CA 90027 213-669-2531 NICU	Laura Klee RN 213-669-2531	James Atkinson MD 213-669-2491
Children's Hospital of Orange P.O. Box 5700 Orange, CA 92613-570 714-532-8540 NICU	Terry Zellinger RN 714-997-3000 Pager 225	Barbara Towne MD 714-538-3995 FAX 714-532-8389
Huntington Memorial Hospital Department of Neonatology 100 Congress St. Pasedena, CA 91109-7013 818-397-5081 NICU	Richard Odell RRT 818-397-8789	Ernesto Gangitano MD 818-397-5461
San Diego Regional ECMO Program 8001 Frost St San Diego, CA 92123 619-576-5888 Children's Hosp NICU 619-543-6560 UCSD ISSC	Peggy Grimm RN 619-576-4099	Devin Cornish MD 619-576-4099

8. Moront MG, Katz NM, Keszler M, et al. Extracorporeal membrane oxygenation for neonatal respiratory failure. A report of 50 cases. *J Thorac Cardiovasc Surg.* 1989;97:706-714.
9. Black RE, Mayer T, Walker ML, Christison EL, Johnson DG, Matlak ME, Storrs B, Clark P. Special report. Air transport of pediatric emergency cases. *N Engl J Med.* Dec 21982;307(23):1465-1468.
10. Arp LJ, Dillon RE, Long MT, Boatwright CL. An emergency air-ground transport system for newborn infants with respiratory distress syndrome. *J Med Assoc State Ala.* Jun 1969;38(12):1112-1117.
11. Arp LJ, Dillon RE, Long MT, Boatwright CL. A transport system for newborns with respiratory distress syndrome. *J Miss State Med Assoc.* Sep 1969;10(9):412-416.
12. Arp LJ, Dillon RE, Long MT, Boatwright CL. An emergency air-ground system for newborn infants with emergency distress syndrome. *Mich Med* Jun 1969;68(11):571-574.
13. Arp LJ, Dillon RE, Long MT, Boatwright CL. An emergency air-ground transport system for newborn infants with respiratory distress syndrome. *Pa Med.* May 1969;72(5):74-76.
14. American Academy of Pediatrics Committee on Hospital Care: Guidelines for Air and Ground Transportation of Pediatric Patients. *Pediatrics.* Nov 1986;78(5):943-950.
15. Beck R, Anderson KD, Pearson GD, Cronin J, Miller MK, Short BL. Criteria for extracorporeal membrane oxygenation in a population of infants with persistent pulmonary hypertension of the newborn. *J Ped Surg.* 1986;21:297-302.
16. Pettett G, Merenstein GB, Battaglia FC, Butterfield LJ, Efird R. An analysis of air transport results in the sick newborn infant: Part 1. The transport team. *Pediatrics.* Jun 1975;55(6):774-782.
17. Merenstein GB, Pettett G, Woodall J, Hill JM. An analysis of air transport results in the sick newborn 11. Antenatal and neonatal referrals. *Am J Obstet Gynecol.* Jul 1 1977;128(5):520-525.
18. Byrd RB, Berns JR, McElvain WH. Air transport of patients in respiratory failure. *Aerosp Med.* Aug 1970;41(8):934-937.
19. Harless KW, Morris AH, Cengiz M, Holt R, Schmidt CD. Civilian ground and air transport of adults with acute respiratory failure. *JAMA.* Jul 28 1978;240(4):361-365.

AUTHORS

H Scott Bjerke MD* obtained his medical degree from the John A. Burns School of Medicine in 1983, completing a general surgical residency at the New England Medical Center in Boston, Massachusetts, in 1988. He was on staff with the UCLA ECMO team from 1988 to 1990, then completed a fellowship in surgical critical care at Cedars Sinai Medical Center in Los Angeles. He is currently an assistant professor of surgery and director of surgical critical care at the University of Nevada School of Medicine in Las Vegas, Nevada.

Larry Barcliff RRT** is a registered respiratory therapist and served as acting ECMO coordinator from 1987 to 1990 at UCLA Medical Center, Los Angeles. He is currently the administrator of the UCLA Surgical Research Laboratory.

Robert P Foglia MD+ initiated and directed the ECMO Program at UCLA from 1987 to 1990 after training in pediatric surgery at Children's National Medical Center in Washington DC and 3 years on staff at Massachusetts General Hospital in Boston, Massachusetts. He is currently chair of the division of pediatric surgery, Washington University School of Medicine and chief of surgery at St. Louis Children's Hospital in St. Louis, Missouri.

[Hawaii takes pride in its graduate, Scott Bjerke, and in the Armed Forces adjunctive assistance/Ed]

■

CORONARY ATHERECTOMY

(continued from page 330)

L. Evidence implicating nonmuscle myosin in restenosis. Use of *in situ* hybridization to analyze human vascular lesions obtained by directional atherectomy. *Circulation.* 1992;85:543 to 553.
14. Buchbinder M, Leon M, Warth D, Marco J, Dorros G, Zacca N, Erbel R. Multi-center registry of percutaneous coronary rotational ablation using the Rotablator (abstract). *J Am Coll Cardiol.* 1992;19:333A.
15. Leon MB, Kent KM, Pichard AD, Spring D, Zacca N, Buchbinder M. Percutaneous transluminal coronary rotational angioplasty of calcified lesions (abstract). *Circulation.* 1991;84:II-521.
16. Basnight MA, Zipkin RE, Sterzler SH, Rosenblum J, Shaw RE, Ward K, Murphy MC, Myler RK. Myocardial injury following coronary rotational ablation: mechanisms and incidence (abstract). *J Am Coll Cardiol.* 1992;19:334A.
17. Sketch MH, O'Neill WW, Galichia JP, Feldman RC, Walker CM, Sawchak SR, Meany TB, Wall TC, O'Connor CM, Tcheng JE, Philips HR, Stack RS. Restenosis following coronary extraction-endarterectomy: the final analysis of a multicenter registry (abstract). *J Am Coll Cardiol.* 1992;19:277A.
18. Kramer B, Larkin T, Niemyski P, Parker M. Coronary atherectomy in acute ischemic syndromes: implications of thrombus on treatment outcome (abstract). *J Am Coll Cardiol.* 1991;17:385A.
19. Leon MB, Pichard AD, Kramer B, Knopf W, O'Neill W, Stack R. Efficacious and safe transluminal extraction atherectomy in patients with unfavorable coronary lesions (abstract). *J Am Coll Cardiol.* 1991;17:219A.
20. Cook SL, Eigler NL, Shefer A, Goldenberg T, Forrester JS, Litvack F. Percutaneous excimer laser coronary angioplasty for lesions not ideal for balloon angioplasty. *Circulation.* 1991;84:632 to 643.
21. Savage M, Fischman, Leon M, Ellis S, Schatz R, Goldberg S. Restenosis risk of single Palmaz-Schatz stents in native coronaries: Report from the core angiographic laboratory (abstract). *J Am Coll Cardiol.* 1992;19:277A.
22. Naftilan AJ. Chemical atherectomy: A novel approach to restenosis. *Circulation.* 1991;84:945 to 947.

ACKNOWLEDGEMENT

The authors thank J Scura and the Straub Cardiac Catheterization Laboratory (J Brennan, K Bridges, L Chun, M Pine, M Warren), E Imoto MD, K Mayeda, R Subia and the Operating Room staff for their tireless support.

■



"You don't need to worry 'bout Daddy and me ... we're living in a hotel now that the Health Inspector came and padlocked the house."

Clinical Pathologist's Easy Chair

Francis H Fukunaga MD

WBC Differential

The WBC differential is the relative frequency of the white blood cell types in peripheral blood. It is usually ordered to identify any abnormality that may be present in the blood smear or to compare the current WBC population with a previous study. When a WBC differential is done, we assume that the leukocyte distribution in the blood smear corresponds to that in the patient; a random sample of the cells in the smear is examined, and the cells are correctly identified.

The WBC differential is one of the most frequently requested and often overused laboratory procedures. The request for a differential is often "automatic" and ordered when only a hemoglobin or total WBC is desired. The differential is a labor-intensive procedure and the available automated systems do *not* identify all cells nor distinguish such details as the difference between bands and segmented neutrophils. The usual textbook normal adult leukocyte count, first obtained from a study of 105 medical students, is given as 5,000 to 10,000 per μL with 95% statistical limits of 4,860 to 10,700 and the normal differential is as follows[1]:

Segmented neutrophils:
25% to 69% or 1450 to 5890/μL
Juvenile and Band neutrophils:
0% to 17% or ≤1450/μL
Lymphocytes:
21% to 49% or 1490 to 3920/μL
Monocytes:
2.5% to 10.5% or 140 to 860/μL
Eosinophils: 0% to 7% or ≤ 570/μL
Basophils: 0% to 1.6% or ≤ 124/μL

The differential is usually reported in percent but the total number per μL may be more meaningful when the total leukocyte level is above or below the normal range. Studies of larger groups of healthy adults have shown a normal total leukocyte count of 4,100 to 10,900 per μL[2] and bands up to 2,100 per μL with an average of 600[3].

The classification of bands is a continuing problem because many observers still include some of the bands in the segmented neutrophil category. The difference between a band and segmented neutrophil is seen at the connection between the lobes of the nucleus. The lobes of the band nucleus have nuclear material between 2 distinct membranes whereas the segmented neutrophil has nuclear lobes connected by a thread-like filament that is so narrow there is no visible chromatin[4]. Bands are not separately identified and are counted as segmented neutrophils in the automated differential. Myelocytes are not normally found in the peripheral blood smears but may be seen in buffy coat smears.

There are a number of factors other than disease that can alter the WBC differential. These include a combination of analytical and sampling variability and physiological changes. More than 750 of the total variance in the neutrophils, lymphocytes, monocytes and basophils and about 50% of the eosinophil variance are due to factors other than disease[5]. The patient's own daily variation is the best reference in assessing day-to-day changes.

Because of the chance distribution of cells in a smear, analytic variations for neutrophils is at least 10%, lymphocytes 15%, monocytes 48%, eosinphils 52% and basophils 141%. Much of the variation in the WBC differential is due to the obligatory random variation that depends upon the number of cells counted. The larger the number of cells examined, the narrower the confidence limits. The sampling variability, therefore, must be considered before deciding on the significance of any change in the differential[6].

Physiologic fluctuations of the leukocytes occur from day to day and during a single day. The total WBC count is usually higher in the afternoon and after heavy muscle activity, such as exercise and manual labor; but the diurnal variation for neutrophils, monocytes and lymphocytes is random and not systematic. Extremes of heat or cold, emotional states (excitement or depression), pregnancy, and some medications (steroids, digitalis, etc) are causes of leukocytosis. The diurnal variation in healthy subjects is 9.4% for total WBC, 12.9% for neutrophils, 10.3% for lymphocytes, 18.6% for monocytes, 20% for eosinophils and 7.4% for basophils[5].

Frequently repeated differentials are expensive and almost worthless. They should be limited to situations where the clinical course is not clear and at long enough intervals that the results can affect clinical decisions[7]. The differential is of no value if the patient is improving clinically and it probably will not change the management of the patient who is clinically deteriorating unless there are alternate modes of treatment.

Repeat differentials are usually ordered to:

1. Confirm a previously abnormal differential.
2. Evaluate and/or monitor selected chronic diseases:
   a. Myeloproliferative/ myelodysplastic disorders.
   b. Chronic infections.
   c. Systemic malignancies.
   d. Autoimmune diseases such as SLE.
3. Monitor therapy:
   a. Cancer chemotherapy.
   b. Drugs that suppress the bone marrow such as clindamycin, chloramphenicol, semi-synthetic penicillins, gentamicin and phenylbutazone.

The day-to-day change is considered significant when the highest value of a sequence of counts exceeds the lowest by 2 CV or 31% for the total WBC, and 46% for PMN (neutrophils)[8]. Another study concluded that the minimum significant change in the total count is 50% and for PMN was 46%[9]. Repeat differentials without a significant change in the total WBC would result in little or no information[10]. The total WBC adequately predicts changes in the neutrophils in 99% of instances. When there is a risk for leukopenia because of chemotherapy, the differential is not necessary if the total WBC is greater than 4,500 per μL—the total WBC correlates with the neutrophil count. If the total WBC is less than 500 to 1,000 per μL, the neutrophil count is too low to protect against

hospital-aequired infections and a repeat differential would not be helpful[7]. Repeat differentials at University of California Medical Center are *not* done unless there is a significant change in the total WBC; the authors suggest that a total WBC be done on alternate days or twice a week, and a differential only if the total WBC is *twice* or *one half* the original count[10]. They also suggest that all significant changes in the total count and differential be verified on the following day.

REFERENCES

1. Wintrobe MW. *Clinical Hematology*, Lea & Febiger, 7th ed. 1974.
2. Zacharski LR et al. Leukocyte counts in healthy adults. *Amer J Clin Pathol.* 56:148150, 1971.
3. Ortanakis NG et al. Normal blood leukocyte concentration values. *Amer J Clin Pathol.* 53:647-651, 1970.
4. College of American Pathologists. Koepke, JA, ed. Differential Leukocyte Counting. CAP Survey Manual. Skokie, Ill: 1977.
5. Bull B and Korpman RA. Characterization of the WBC differential count. *Blood Cells.* 6:411-419, 1980.
6. Rumke CL. The statistically expected vari ability in differential leucocyte counting in Differential Leukocyte Counting. Koepke, JA, ed. CAP, 1977.
7. Shapiro MF and Greenfield S. The CBC and leukocyte differential: an approach to rational application. *Ann Intern Med.* 106:65-74, 1987.
8. Statland BE et al. A study of variation of concentration of Leukocyte types *Advances in Automated Analysis.* Technicon International Congress, Mediad Inc, Tarrytown, NY:1976.
9. Brecher G and King LL. Utilization of Inter pretation of Laboratory Tests in Evaluation and Uses of Automation in the Clinical Laboratory. NIH Publication. 79-501, 1979.
10. Brecher G et al. When to do differentials: How often should differential counts be repeated? *Blood Cells.* 6:431-454, 1980.

■

Table of significant change of WBC differential[6].

Percentage of cells in initial count	Change not significant when second count in this range
1%	0 to 8%
5	0 to 14
10	2 to 21
15	6 to 27
20	9 to 33
25	12 to 39
30	17 to 44
35	22 to 49
40	26 to 55
45	31 to 60
50	36 to 64
55	40 to 69
60	45 to 74
65	51 to 78
70	56 to 83
75	61 to 87
80	67 to 90
85	73 to 94
90	79 to 98
95	86 to 100
100	92 to 100

PENSION HEADACHES?



GET THE CURE...

Are pension details giving you a headache? Call HICKS and get the cure. As third Party administrators of qualified retirement plans, HICKS offers complete support to accountants with consulting, documentation and administration for their clients.

Clients of HICKS enjoy complete discretion of trust assets while never having to worry about compliance issues or administration duties. With HICKS, all required Trust Accounting, Participant Allocations, Government Reporting (including IRS form 5500) and Plan Amendments are handled. And, with over 21 years of experience behind us, accountants enjoy the comfort of knowing their clients' plans are being handled by the best in the business!

So, if pension headaches are getting you down, call HICKS and get the cure!

- *Self Trustee Plans
- *Standardized Documents
- *Plan Design and Amendment
- *Actuarial Services
- *In-House Continuing Education
- *Training for Accountants
- *Profit Sharing
- *401(k) Profit Sharing
- *Money Purchase Pension
- *Target Benefit Pension
- *Defined Benefit Pension
- *125/Cafeteria Plans

HICKS. PENSION SERVICES

CPE

615 Piikoi Street • Suite 2020 • Honolulu HI 96814 • (808) 523-0144

Maka O Ke Kauka

Russell T Stodd MD

You have not converted a man because you have silenced him.

The recent American Academy of Ophthalmology annual meeting in Dallas was programmed to be a showdown for those who were seeking changes in the Academy structure to allow greater direct representation for the rank and file. Instead it was the bun fight at the low key corral. Rather than the anticipated rebellion, attending members at the business meeting accepted *in toto* the by-laws changes recommended by the Ad Hoc Committee on Organizational Design, with only a few discordant voices. It is said that the new structure will be more streamlined, effective and accessible.

Progress is made on alternate Fridays.

The National Practitioner Data Bank was established by a 1986 act of Congress to rein in errant doctors. While hospital disciplinary actions, professional group sanctions and malpractice awards and settlements must be reported to the NPDB, *state medical boards are not required* to use the data bank when evaluating physicians for licensure. Furthermore, many doctors practice outside of hospitals and professional groups and are not subject to review. Hence, the problem of the incompetent, itinerant, gypsy doctor still escapes the NPDB and that small 1% or 2% can travel from state to state and go unpunished. The escape hatch for these brigands can be closed at the State licensing level.

I can't give you brains, but I can give you a diploma.

In La Jolla, California, more than 10 doctors cooperated with state investigators in a fraud case and as a result, ophthalmologist Jeffrey Rutgard MD had his medical license suspended. What to do? Dial a mouthpiece, of course. Now the doctor is suing for a mere $80 million, claiming that his license was wrongly suspended and the action was a product of jealous competitors and disgruntled employees.

For every vision there is an equal and opposite revision.

Another blow was struck for national health care reform by a Supreme Court decision not to rule on McGann vs H&H Music Co. The employer, H&H Music Co., did not want to cover the expenses for employee McGann when it was learned that he had AIDS. The coverage, which was for a maximum of one million, was abruptly dropped to $5,000, and McGann sued. A lower court upheld H&H Music's right to change the medical plan and the high court let that decision stand. And that is additional piercing ammo for the Democratic Congress as it prepares to remake the American medical care into a public utility.

Nothing is as inevitable as a mistake whose time has come.

Richard Reece MD, writing in *Medical World News,* "Whether liberal politicians or conservative managers run the system, physicians will likely lose autonomy, control and income," which is another way of saying that the quality of medical care will fall into that swirling maelstrom called the porcelain facility. As a factor in the recent election, consider that a nationwide pre-election poll of 1,256 voters showed that Clinton was selected by a 5 to 1 margin as the health-care savior.

And now abideth faith, hope and charity, these three; but the greatest of these is charity.

How charitable are you toward your hospital? Only 54% of physicians surveyed contribute to the hospital they use the most. Ophthalmologists are exactly on average at 54%, contributing $1,040 while only 48% of hospital-based docs contribute, but they are the most generous at $5,819. Older physicians, 60 and over, dig deepest averaging $2,163.

There is no sincerity like a politician telling a lie.

President-elect Clinton has pledged that he will cut the executive staff by 25% and wants Congress to do the same. But his majority pork leader Senator George Mitchell claimed that Congress had already done so. Not so according to the Office of Management and Budget which revealed that Congressional staffing currently numbers 38,200, the same as last year and up considerably from 36,490 in 1986.

Cleanliness is next to impossible.

Meanwhile, back at carnival on the Potomac, the Senate passed a bill called the Health Fraud Prosecution Act of 1992, which would fine those convicted up to $250,000 and permit a jail sentence of up to 10 years (double to 20 years if patients were bodily harmed). No action was taken in the House, so the issue won't go anywhere now. And as for our esteemed and honorable members on Capitol Hill, what about sexual harassment, and free vacation-home construction, and self-administered nocturnal pay increases, and S&L pay offs, and bloated campaign funds that get into personal pockets, and . . .

Nothing is ever so bad that it can't get worse.

A recent Louis Harris and Associates poll surprised the PPRC. When physicians were asked what was the most serious problem confronting them, 70% named *paperwork and administrative hassle.* Only 40% complained about reimbursement levels and 34% noted professional liability costs. Will it get better? Likely not, as Pres-soon-to-be Clinton envisions yet another layer of bureaucracy as a super medical-care planning and advisory body.

Addenda

- In Tibet, the prevalence of cataracts is 60% higher than in other parts of China.
- "To do nothing is sometimes a good remedy." Hippocrates
- Love is where a woman never gets what she's expecting and a man never expects what he is getting.

Aloha, and keep the faith

rts ■

CLASSIFIED NOTICES

To place a Classified Notice, MEMBERS, please send typewritten ad to HMA office.
Nonmembers, please call Leilani at 521-0021, 4 line min., approx. 5 words per line. Payment must accompany order.

BUSINESS OPPORTUNITY

MEDICAL CLINIC FOR SALE
Internal medicine primary care practice. Located at the Aiea Medical Bldg. Fully equipped & fully furn. Estab. 15 yrs. 25 patients/day, 3 exam rms., consultation rm., business/billing office, recep. area, complete in-office lab. Office approx. 950 sf. Terms negotiable. Serious inquiries & offers call: 528-2102; 622-7611 or write Medical Clinic, PO Box 2167, Hon., HI 96805.

EMPLOYMENT OPPORTUNITY

ALOHA MEDICAL CONSULTANTS
Positions available 6 MDs: Internists/Ob/Ortho/Occ. Health+; Charge RNs and RPTs. Kathryn Beavin 941-1551.

FP/GP
For Maui resort medical office. Send CV to Dr. Ben Azman, West Maui Healthcare Center, Kaanapali, Hawaii 96761 or phone 1-808-667-9721.

CRUISE HAWAII—Primary care physicians needed to staff cruise ships (SS Independence, SS Constitution). One week cruise minimum. ACLS required. Please contact Acute Care Medical Services 262-4181. Neighbor Islands place call 1-800-788-4181.

HAWAII. Family Practioner with OB skills and internal medicine practitioner needed for rural underserved area. Full-time position in non-profit community health clinic. Desire dedicated person to work in multicultural setting. Contact Puanani Kalawa, Waianae Coast Comprehensive Health Center, 86-260 Farrington Hwy., Waianae, HI 96792. Ph. (808) 696-7081.

FOR SALE

QBC Blood Analyzer
Automated CBCs utilizing buffy coat analysis of a tiny capillary tube blood sample. State-of-the-art. Printer included. Purchased 5 months ago for $11,300 and rarely used. Transferrable warranty. $8,000 complete. Contact Marika at 831-3000.

TREADMILL UNIT
Adjustable speed and angle treadmill. Functional but old. EKG unit is outdated and not functioning but may be repairable. $100. Contact Marika at 831-3000.

PEDRATRIC AUDIOMETERY/VISION TESTING-1. Maico 12 audiometer earphone frequence 250-8000 cps. 2. Titmus II vision tester, slides for standard testing, preschool, color preception, and illiterate testing included. Both for $350. Available after December 31, 1992. Call 947-3781.

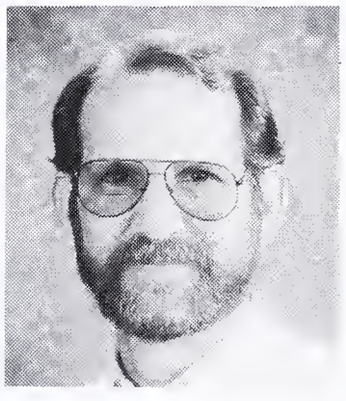
CLINIC EQUIPMENT SALE
2 med exam tables w/stirrups, 2 Maico audiometers, Titmus vision tester, new Ricoh FAX 280 OL, Ricoh copier FT 4460, 2 treatment tables, phys-therapy equip., incl. 2 Chattanooga Co. computerized traction machines, electric Hi-Lo traction table w/Saunders unit for cervical Tx, wall-mount cervical traction unit, 10 pack Chattanooga Co. hydrocollar tank, ultrasound machine, 8 Scandesign-type wait. room chairs, 4 secr. chairs, 8 and 6-shelf filing cabinets, treadmill, Burdick EK-5A EKG machine. Office equip. and supplies, etc. Also Welch-Allyn wall-mount Oto-Ophthalmoscope set and other equip. Write to: 930 Kaheka St. #1704, Hon., HI 96814 or call 943-8778.

COULTER COUNTER BLOOD DILUTER
Electrolyte machine and other lab equip/supplies. Call 523-5623.

OFFICES

LOWER YOUR OVERHEAD
Nice conf. rms. & offices available. Hourly and full time, receptionist, tele. ans. in YOUR name, much more, EXCELLENT IMAGE. Call HEADQUARTERS COMPANIES 522-9494.

TLC MEDICAL CENTER—Has spaces available for lease and time share. 1650 Liliha Street Call: 941-6996



Retirement Plans
•
Investment Management Consulting
•
Life and Disability Insurance
•
Charitable Remainder Trusts

mel r. hertz
MBA, CFP
Certified Financial Planner

Pacific Tower, Suite 2800
1001 Bishop Street
Honolulu, Hawaii 96813
(808) 599-4504

derand

Securities Offered Through IFG Network Securities, Inc. (IFG), Members NASD and SIPC. Financial Planning Services Through Associated Financial Planners, Inc. (AFP), Registered Investment Adviser. mel r hertz is a registered principal of IFG and a registered representative of its affiliate AFP, both of which are otherwise unaffiliated with derand.

CLASSIFIED NOTICES

AMBULATORY SURGERY CENTER FOR SALE OR LEASE. Located in a medical office building. Fully equipped and furnished. Terms negotiable. Call 538-6622; or write to: Ambulatory Surgery Center, 1520 Liliha St., Suite 601, Hon., HI 96817.

KUAKINI MEDICAL PLAZA OFFICE Will sublease. Terms negotiable. Ph. 524-5225 or answering service 988-2188.

KAILUA AND/OR KAHALA Equipped medical offices available to share. Medical buildings, excellent reference source. 266-0066.

HAWAII KAI MEDICAL BLDG. 781 sq. ft. or 1,562 sq. ft. office sublease at attractive rents. Vahe Kenadjian (R) 735-0179. McCormack Properties, Ltd. 539-9600.

SPORTS MEDICINE AND ORTHOPEDIC SURGICAL PRACTICE willing to share office space at Queen's POB-1 and Pali Momi POB location, complete staff, managerial system, radiology and physical therapy services avail. Contact Diane Fong at 536-4992 M-W-F or at 487-7231 T & TH.

INTERNIST WILLING TO SHARE OFFICE SPACE in two locations—St. Francis MOB and Aiea. Interested physicians call Jon Won, 536-6988.

POSITIONS WANTED

COLO-RECTAL SURGEON—46 yrs old, Cleveland Clinic trained. 11 yrs. exper. Board-certified general & colo-rectal surgery. FACS, FASCRS. Seeking group or clinic association. (808) 723-3261.

AVAIL. FOR LOCUM TENENS—A caring, board-certified, long-time Hawaii physician. Available days or weeks. Call Mary Glover MD, 668-7337.

INTERNIST AND/OR MEDICAL ONCOLOGIST—needed to join active practice. This is an excellent opportunity to develop a busy practice in a short period of time. Please call 244-7627, Wailuku, Maui.

SERVICES

MEDICAL BILLING SERVICES—Patient statements, insurance claims processing, accurate management reports. Personalized service, affordable monthly rates. Call MEDCON 247-0591.

LOCUM TENENS PROVIDED—Internal Medicine and family practice available. Please contact Acute Care Medical Services. 262-4181.

LOCUM TENENS AVAILABLE—Family practice, pediatrics, urgent care. No agency fees. Deal direct. 923-2981.

BOARD-CERTIFIED—anesthesiologist (licensed in Hawaii) available for temporary coverage, vacation or locum tenens work. (713) 341-9703.

REAL ESTATE

MAKIKI HEIGHTS—FEE SIMPLE 3 bdrm., 3 bath, POOL, ocean views. 528-0039. CHANEY BROOKS REALTY INC.

OFFICE FOR SALE

ESTABLISHED GENERAL PRACTICE in Waipahu for sale. Terms Negotiable. Call 671-3931.

PRACTICE FOR SALE—General Internist retiring in March 1993 after 34 years of active practice. South King Street near NBC Concert Hall. Good patients and reasonable terms. Call 538-7886.

A REAL BARGAIN—Closing branch office in Waipahu, willing to leave office improvements and furninture (chairs, exam. table, typewriter, refrig., copier, cabinets, phone, etc) for $3,000 or best offer. Call 523-9677, 521-8288 or 523-7955.

WILL EVERYONE INTERESTED IN PREVENTING HEART ATTACK, PLEASE STAND UP?



If your only regular form of exercise is adjusting your recliner, it's time to get moving. To learn more, contact your nearest American Heart Association.
You can help prevent heart disease and stroke. We can tell you how.

American Heart Association

This space provided as a public service. © 1992, American Heart Association

HMSA and much more

HMSA - Hawaii Medical Services Association * Aetna Life & Casualty * Aetna Health Plans - PPO * Allstate (Metropolitan Life) * American Postal Workers Union (APWU) * Arizona necticut General) * CIGNA Equicor (The Equitable) * ance Company * Genelco ern Life * Great West Life * Healthy Choice * ICH Cor- John Hancock Mutual Life curity * John Hancock Pre- Metropolitan Life Insurance Modern American Life In- * Mutually Preferred * Pa- phia American (Phildelphia Principle Mutual Life * Provident Life & Casualty * Life * The New England * Benefit Life * United of * Confederation Life * Con- Life of Georgia * Southland ian Life * American Gen- Services * Anthem Health Insurance * CNA Services * New York Life Jefferson Pilot Life (Pilot) * Company * Central Life As- Financial Services * Mu- Company * Time Insur- ton National Insurance Insurance Company Mailhandlers Benefit Plan ers) * Prudential * Prucare Mine Workers * Bay Pa- Community West New Denver * Complete heatlth US Healthcare * Indepen- Healthcare: Health First At- gan - Lansing * PHP of PHP of South West Michi- West Michigan - Muskegon * MEDICA - Minneapolis * PHP of Greater St. Louis * Ocean State PHP - Rhode Island * PHP of South Carolina - Columbia * PHP of Utah - Salt Lake City * Preferred Care * Choice Care * Tufts Association Health Plan * and many, many more.....

Health Plan * CIGNA (Con- (Health Plan HMO) * General American Insur- Incorporated * Great South- Healthpoint Corporation * poration * J. C. Penney * * John Hancock Health Se- ferred Health * Met Elect * * Metlife network (HMO) * surance * Mutual of Omaha cific Mutual Life * Philadel- Life) * Principal Financial * Provident Life & Accident * Sanus PPO * State Mutual The Travellers * United Omaha * Benefit Trust Life federation Administration * Life Insurance * The Guard- eral Group * Anthem Group Plan * Anthem Life * CNA Mailhandlers * Gulf Group Insurance * The Phoenix * Business Men's Assurance surance Company * MONY tual Benefit Life Insurance ance Company * Washing- Company * Western Life (Fortis Benefits) * * California (PHCS Provid- * Lincoln National * United cific * Foundation Health * York * Rocky Mountain - - Birmingham * Humana * dent Health * United lanta * PHP of Mid Michi- South Michigan - Jackson * gan - Kalamazoo * PHP of

Open a bottle of champagne. Strike up the band. Now physicians can have HMSA and much more. More comprehensive handling of insurance claims. More detailed reporting and claim tracking. More coverage of national insurance carriers. We do HMSA and more....

Rx * *File your Medical Claims Electronically (No Paper)*

* *100 + Insurance Carriers Nation-Wide (including HMSA)*

* *We do all the work*

Benefits at a Glance:

* More money back, Faster!
* Daily reporting to practices (cash flow decision making tool)
* Pre-editing of claims by qualified staff - less than 2% rejections
* Minimum upfront costs (no investment required)
* No disruption to existing practice
* Free Consultation Services
* Free Trial



Electronic Medical Claims Services

Full Service EMC

Quest USA, 521 Ala Moana Boulevard, Suite 216, Honolulu, Hawaii 96813 (808)533-8850
Contact: David A. Parish or Brenda Sims

We asked Father Kennedy what he thinks of the new phone system at St. Andrew's Priory.

He gives it his second highest praise.

If you're going to take second place, it may as well be like this.

It all began when one of Hawaii's largest girls prep schools came to the GTE Hawaiian Tel Phone Mart Business Center with a problem.

"Our phone traffic was backed up at the reception desk," remembers Father David Kennedy, St. Andrew's headmaster. "We really couldn't afford extra help to deal with the bottleneck, and we couldn't invest in lots of extra equipment either.



"But then we met Dennis at Phone Mart Business Center. He showed us a better way: a CentraNet system using GTE Hawaiian Tel's own computers for our call routing. So calls aren't bottled up along the line anymore.

"The result is a phone system that performs better and, miraculously, costs less. On top of that, GTE Hawaiian Tel is always there to help if anything goes wrong.

"We wouldn't hesitate to put our faith in Phone Mart Business Center again," says Father Kennedy.

"And we're rather careful about whom we put faith in around here."

320 Ward Avenue (Ward Court). Hours: Monday through Friday, 9 a.m. to 5 p.m. Telephone: 546-4747

GTE Hawaiian Tel
PHONE MART
Business Center

208255

611619

3 1378 00611 6191